



# Final Report

## 2010 Performance Audit and Asset Management System Review for Transfield Services

Audit Report	Authorisation	Name	Position	Date
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Agreed By (licensee)		Wayne Roberts	Transfield Services	28 June 2010

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#### Glossary

AS/NZS 4801:	Safety Management System Standard
BW TSIL :	Transfield Services Infrastructure Fund
EADR:	Electronic Acquisition, Disposal and Replacement process
DSOC:	Declared Sent Out Capacity
HSE:	Health, Safety and Environment
HSEQR:	Health, Safety, Environment, Quality, Risks
ISO 9001:	Quality Management System Standard
ISO 14001:	Environmental Management System Standard
KMP:	Kemerton Power Station
O&M Alliance Agreement:	Operations & Maintenance Alliance Agreement between Transfield Services Infrastructure Ltd and TSI International Ltd and Transfield Services (Australia) Pty Ltd
OSP:	Operations Systems Performance
PGS:	Power Generation Services
SAP:	Enterprise management system
SRC:	Strategic Review Community
SKM:	Sinclair Knight & Merz
Transapp:	Transfield intranet applications
TSKPS:	Transfield Services Kemerton Power Station
WPN:	Western Power Networks

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	WAYNE ROBERTS: TRANSFIELD SERVICES	JANUARY 2010
PREPARED BY	NICOLE DAVIES	JUNE 2010
CHECKED BY	NEEMA PREMJI	JUNE 2010
REVISION	1	12 <sup>th</sup> JULY 2010



## 1. EXECUTIVE SUMMARY

The Kemerton Power Station is situated in the Kemerton Industrial Park, Wellesley. Kemerton Industrial Park is located 17km north-east of the City of Bunbury and comprises over 5,400 hectares of land.

Kemerton Power Station operates as a peaking plant and provides input into the SWIS in Western Australia. The power station comprises two open cycle gas turbines. It was constructed by Transfield Services and commenced operation in November 2005.

In August 2007, Transfield Services Infrastructure Fund announced a 40MW upgrade to Kemerton Power Station, increasing capacity to 300MW. This was completed in July 2008 and has made the power station more efficient and has improved the environmental rating by reducing the greenhouse gas emissions, while providing power for an additional 10,000 households.

The innovative enhancement involves retrofitting an existing power generator with a wet compression system enabling the power station to operate at full capacity, even in extreme temperatures. Transfield Services 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 EGL5 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 21 April 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 EGL5 was provided on the 02/06/10.

The period for the audit and review is 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 2010, and the report is submitted to the Authority before 30 June 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 Transfield Services Asset Management Systems and level of compliance with the conditions of its Generation Licence EGL5. 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 Transfield Services: Kemerton Power Station has an effective asset management system and has complied with its Generating Licence during the audit period 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 2010. This audit report is an accurate representation of the audit teams findings and opinions.

#### **Business Overview**

Transfield Services operate Kemerton Power Station under a series of contractural arrangements which include but are not limited to; Transfield Infrastruture Fund, TSI International, Verve and Western Power Networks.

The Kemerton Power Stations role is to provide support to the grid during rapid changes in generation such as when other generation fails, crisis or during unusually high loads such as air conditioning or heating loads that occur over intense but short periods. Transfield Services does not have any revenue attached to the sale of electricity. The fuel for the Power Station is provided by Western Power and as such Transfield Services Kemerton converts this fuel into electricity generation for Western Power. It is noted that Western Power under the Connection Agreement has title to and maintains Metering Equipment.

With respect to the generation of electricity When Kemerton is needed, the Senior System Operator Controller (SSOC) phones Kemerton Power Station to request a start on a unit however also has the capacity to remotely start the unit from East Perth Control Centre. The unit automatically runs up, synchronises and ramps up to an initial loading of 70MW. From here the SSOC will determine the output of the unit (ie set another output limit, put into frequency control, etc). In effect System Management then have control over the power station generation.

The Declared Sent Out Capacity (DSOC) is 310MW for the site which aligns to the limit stipulated in EGL5. System Management would only utilise capacity above this level for system security reasons and when the Kemerton Generators can produce above this limit and the Western Power network can accommodate this extra output. System Management informs Western Power Networks that it needed to dispatch Kemerton above its DSOC for system security reasons and thus excess Network Usage Charges to be waived.

Kemerton Power Station is included in Verves Plant Dispatch Procedures (effectively outlines Verve's preferred plant usage to maximise output from Verve's least cost generators) and is used by the SSOC, on behalf of Verve, to efficiently meet Verves balancing and ancillary services requirements under the WEM.

During the audit period it was noted that DSOC was greater than 310MW on 11 occasions all of which were credited to Verve and billing waived due to nature of the requirement i.e. gas crisis or other system emergency.



## 1.1 Performance Audit Summary

With the exception of Licence Conditions 16.1 (Ref 82) 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 (July 2009) 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 EGL5. These are defined in Table 1.



#### Table 1 : Performance Audit Compliance Summary

Generating Licence Reference (CI = Clause, Sch = Schedule)	Generation Licence Criteria	Likelihood	Consequences	Inherent Risk	Adequacy of existing controls	Compliance Rating							
Gen (CI					Ac Ac	NR	NA	0	1	2	3	4	5
CI 1	Definitions					~							
CI 2	Grant of Licence	Unlikely	Minor	Low	Strong								~
CI 3	Term	Unlikely	Minor	Low	Strong								~
CI 4	Fees	Unlikely	Minor	Low	Strong								~
CI 5	Compliance	Unlikely	Moderate	Medium	Strong							✓	
CI 6	Transfer of Licence	Unlikely	Major	High	Strong		~						
CI 7	Cancellation of Licence						✓						
CI 8	Surrender of Licence						~						
CI 9	Renewal of Licence						~						
CI 10	Amendment of Licence on application of the Licensee					~							
CI 11	Amendment of Licence by the Authority												~
CI 12	Expansion or Reduction of Generating Works, Distribution Systems and Transmission Systems	Unlikely	Minor	Low	Strong							~	
CI 13	Accounting Records	Unlikely	Minor	Low	Strong								~
CI 14	Individual Performance Standards					~							
CI 15	Performance Audit	Unlikely	Major	High	Strong							✓	
CI 16	Asset Management System	Unlikely	Major	High	Strong			1		~			
CI 17	Reporting	Unlikely	Major	High	Strong								✓
CI 18	Provision of Information	Unlikely	Major	High	Strong								✓
CI 19	Publishing Information	Unlikely	Minor	Low	Strong		✓	1					
CI 20	Notices	Unlikely	Minor	Low	Strong								✓
CI 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. As required by section 11.4.2 of the Audit Guidelines (July 2009) 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;

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

The Audit Guidelines (July 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 Transfield Services compliance with obligations relating to Generation Licence EGL5. As such, the scope of the audit for the period 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 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 20 March 2006 to 31 March 2008.

This Performance Audit was conducted over the following period April to June 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;

- Wayne Roberts Kemerton Power Station Plant Manager
- Cameron Parotte Branch Manager, System Operation Control, Western Power
- 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 Alliance Agreement
- Power Purchase Agreement
- Deed of Variation No. 2 PPA
- Monthly Reports
- ERA Correspondence
- Compliance Reports
- Transfield Services Asset Management Plan
- Compliance Reporting Manual June 2006
- Certificate of Title
- Connection Agreement

Further detail is included in Appendix 1 of the report. In total 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 (July 2009) on each element relating to Generation licensee's of the Electricity Compliance Reporting Manual April 2008 issued by the Authority. The Performance Audit Methodology was detailed in the Audit Plan.

Table 3 defines the compliance ratings shown in section 1.1.

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 strength of internal controls top maintain compliance			
Compliant	3	Compliant with major or material recommendations to improve the strength 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			

 Table 3: Operational/Performance Compliance Rating Scale

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/NZS4360 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 : 2007 Performance Audit Key Findings, Recommendation, Post Audit Plan & Progress

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Outcome
81	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.	Whilst compliance with this requirement is well evidenced, the allocation of responsibility and process for ensuring changes to licence conditions/legislation are identified was not defined.	Potential to use SAP as a tool for monitoring license and regulatory requirements	ACTION: Review the potential for the establishment of a compliance scheduling system (i.e. SAP) for the organisation in order to manage critical compliance functions and assign responsibilities.	SAP fully implemented. Refer Asset Management Review findings.
84	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.			RESPONSIBILITY: Plant Manager KPS DATE: 5 <sup>th</sup> September 2008	



Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Outcome
82	A licensee must provide for an asset management system.	System and processes heavily reliant on personnel to manually plan, track, prioritise and schedule operational tasks.	Full implementation of SAP would assist personnel to prioritise operational tasks. During interview personnel informed that SAP training was imminent	ACTION: Fully implement SAP. RESPONSIBILITY: Plant Manager KPS DATE: 5 <sup>th</sup> September 2008	SAP fully implemented. Refer Asset Management Review findings. Issue relating to non compliance was a follow on from previous audit relating to delay in notification. Refer to report Licence Condition 16.1.
83	A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	As per Generation Licence Condition 16.1 & 16.2	As per Generation Licence Condition 16.1 & 16.2	As per Generation Licence Condition 16.1 & 16.2	The Licensee was compliant in this aspect during the audit period.
85	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.	System is a requisitional cheque based process with the potential for payment to be delayed (i.e. not received within 30 days)	Include the requirement in the SAP as a routine and investigate to the option of paying by EFT to ensure the trail for payment is complete	ACTION: Following planned implementation of SAP include payment of licence as a routine. RESPONSIBILITY: Plant Manager KPS DATE: 5 <sup>th</sup> September 2008	Payment of Licence Fees was in accordance with Licence Requirements during the Audit Period.

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Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Outcome
86	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.	Although past operational history is of a high standards the system and processes heavily reliant on personnel to manually plan, track, prioritise and schedule operational tasks.	Full implementation of SAP would assist personnel to prioritise operational tasks. During interview personnel informed that SAP training was imminent	ACTION: Fully implement SAP. RESPONSIBILITY: Plant Manager KPS DATE: 5 <sup>th</sup> September 2008	SAP fully implemented. Refer Asset Management Review findings.
110	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.	The Annual Compliance Report to the ERA was due on 31/8/07, however the Authority's records indicate that the 2007 Compliance report for Transfield Services Kemerton Pty Ltd's electricity generation licence EGL5 was received late on 17/9/07. This is not considered a breach by definition of compliance in Table 1 of the Audit Guidelines.	Include the requirement in the SAP as a routine upon receipt of the letter requiring the compliance report.	ACTION: Fully implement SAP. RESPONSIBILITY: Plant Manager KPS DATE: 5 <sup>th</sup> September 2008	It is noted that the Compliance Report for July 1 2008 to 30 June 2009 was lodged by the Licensee on the 25/8/09. However, the Authority raised an issue regards to non-compliance for 120 days within the current audit period. The issue and root cause for the non-compliance has now been addressed. The Licensee has recorded this requirement in the Database Licence and Regulatory Requirements 2010 to 2011 [TMF-6023-AD-0002]
Generation	Performance standards are	Potentially the effectiveness	Consideration could be given to	ACTION: Develop a	There have been no performance standards



Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Outcome
Licence condition 14.1	contained in applicable legislation.	of the processes is reduced due to lack of legal/regulatory database while reliant on personnel to manually monitor legal compliance	the development of a legal/regulatory database	legal/regulatory database that includes the requirements of the ERA licence RESPONSIBILITY: Plant Manager KPS DATE: 5 <sup>th</sup> September 2008	prescribed for the Power Station. It is noted that a Database of Licence and Regulatory Compliance has been established.



### 2.4 2010 Post Audit Implementation Plan

As stipulated in section 11.9 of the Audit Guidelines (July 2009), 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 Transfield Services: Kemerton Power Station.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
	<b>Generation Licence condition 12.1</b> The licensee may expand or reduce the generating works if the relevant expansion or reduction is provided for in the asset management system.	Although there is a trigger for inclusion of plant change in the Asset Management Plan within the PPA and O&M Alliance Agreement. A section within the Asset Management Plan highlighting the link to the Generation Licence may assist future compliance. Compliance Rating: Compliant [4]	1. Consideration could be given to including this requirement in the Asset Management Plan as a section for consideration i.e. any plant change to <i>generating works</i> would require ERA notification.	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 121.9. This item will be reviewed and actioned through internal management systems and will form part of the next Audit/Review process.
82	Generation Licence Condition 16.1 - Electricity Industry Act section 14 (1)(a) The <i>licensee</i> must provide for, and notify the Authority of, an <i>asset</i> management system in relation to the generating works within 2 business days from the commencement date or from the completion of construction of the generating works, whichever is later.	Transfield Services breached the licence condition 16.1 to inform the Authority of an asset management system for Kemerton Power station on the completion of generation works in 2005. This was identified in the previous audit but as notification was not until the 29 <sup>th</sup> July 2008 the licensee was non compliant for a period of 120 days during this audit period. It is noted that this non compliance has been actioned already. Completion of wet compression project does not fall under generating works.	2. Review the opportunities to include a trigger to correspond with the Authority outlining project and requesting confirmation that the project does not require conditions of Clause 16.1 to avoid future ambiguity for example, inclusion in the capital works approval process or other such mechanism.	ACTION: Nil. The Authority was notified on the 29 <sup>th</sup> July 2008. RESPONSIBILITY: Wayne Roberts, Plant Manager DATE: COMPLETE

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Ref	Audit Requirement Issue		Recommendation	Post-Audit Action Plan	
		Compliance Rating: Non-Compliant [2]			
83	Generation Licence Condition 16.2 - Electricity Industry Act section 14 (1)(b) A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	In the Annual Compliance Report for 1 July 2008 to 30 June 2009 the organisation detailed the non- compliance relating to the failure to notify the Authority of a substantial change to the Asset Management System. In a letter to the Authority dated 29 <sup>th</sup> July 2008 the licensee rectified this issue. It is noted that this was identified in the previous audit report as a requirement after discussions with the Secretariat. It is noted that in the letter to the ERA the Licensee erroneously identified a review of the Asset Management Plan as a material change. Compliance Rating: Compliant [4]	3. A periodic audit of the licence requirements may also assist the organisation in ensuring key timeframes are achieved.	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 121.9. This item will be reviewed and actioned through internal management systems and will form part of the next Audit/Review process.	



## 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 Transfield Services; Kemerton Power Station asset management system, by evaluating during the audit period 1<sup>st</sup> April 2008 to 31 March 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 Transfield Services: Kemerton Power Station.

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 AS/NZS 4360:2004;
- 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;

Wayne Roberts -	Kemerton Power Station Plant Manager		
Geoff Dutton –	General Manager Assets, Transfield Services Infrastructure Fund		



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

- 1. Power Generation Services: Kemerton Power Station 2008/09 Asset Management Plan
- 2. Power Generation Services: Kemerton Power Station 2009/10 Asset Management Plan
- 3. O&M Alliance Agreement
- 4. Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006, rev 10)
- 5. Kemerton Power Station Monthly report February 2009
- 6. Kemerton Power Station Monthly report July 2009
- 7. Kemerton Power Station Quarterly Report 3<sup>rd</sup> Quarter 2008/09
- 8. Kemerton Power Station Quarterly Report 2<sup>nd</sup> Quarter 2009/10
- 9. BW TSIL Group Financials Pack 2009
- 10.KMP 8042 2010 Budget V2
- 11.2009 09 Mar KMP Results FCST
- 12. Power Purchase Agreement DMS#1366303 & Deed of Variation
- 13. Connection Agreement DMS#1378308 v5
- 14. Risk Portal intranet based via transapp
- 15. In Sight incident reporting system
- 16. Transfield Services Infrastructure Fund / Transfield Services Alliance Management Team (AMT) meeting Minutes Mar 2010
- 17. Incident Management and Investigation procedure TMP-0000-SA-0001
- 18. Database Licence and Regulatory Requirements
- 19. Leadership Commitment Program Report Jan to Dec 2009
- 20. Budget Change Management Form: TMF-8009-AD-0003
- 21. Project Leader: Kemerton Power Station 25.5 year Forecast Model
- 22. Transfield Services Infrastructure Limited (TSIL) Annual Report 2009
- 23. Transfield Services: SKM Technical and Environmental Due Diligence Kemerton Power Station
- 24. Operational Services Audit November 2009
- 25. SRC : Strategic Review Committee Process
- 26. Change Management Assessment TMF-8009-QA-0018
- 27. EADR Process based via transapp
- 28. Transfield Services Infrastructure Fund / Transfield Services Alliance Management Team (AMT) meeting Minutes Mar 2010
- 29. Leadership Commitment Program Report Jan to Dec 2009
- 30. Performance Test For Procedure Wet Compression DGTRP-2007-000089
- 31. Agenda PGS HSE Steering Group meeting 050310
- 32. PGS HSE Steering Group Meeting 050319 Actions
- 33. Management/Toolbox meeting Minutes 260210
- 34. Risk Assessment FY 2009 TMF-0000-RM-0001
- 35. PGS HSEQR Strategic Plan 2009/10
- 36. PGS: Health Safety Environment Quality Risk Plan 2008/09
- 37. Leadership Commitment Program Report Jan to Dec 2009
- 38. Maintenance Policy, Maintenance Policy Report July 2008, Kemerton Maintenance Plan (spreadsheets manually linked)
- 39. SAP Computerised Maintenance Management system (CMMS)
- 40. Training Matrix TMD-6023-LD-0001



- 41. Risk Policy TMC-0000-RM-1001
- 42. Job Start / hazard identification TMF-8009-SA-0002
- 43. Permit To Work System KMP-6023-OPS-0000
- 44. Vibration/Condition/Oil sample; Hydraulic/Turbine/Transformer Thermo

graphic tests (visual inspection of documentation

- 45.OEM O&M manuals (Hard copies)
- 46. Annual monitoring Report KPS (Licence Number 8026/2004/5) File SWB 2675, EPA Assessment 1499, Statement 645 1<sup>st</sup> Dec 2009
- 47. Training Matrix TMD-6023-LD-0001
- 48. Change Management Assessment TMF-8009-QA-0018
- 49. Change to Plant / Control System Procedure TMP-8009-OP-0001
- 50. Change to Plant / Control System Register TMD-8009-OP-0002
- 51. Change to Plant / Control System Form TMF-8009-OP-0001
- 52. Daily Back up Spreadsheet
- 53. Risk Register & Risk Assessment Work sheet TMF-0000-RM-0001
- 54. JSA's (egTMF-4022-SA-0003)
- 55. Transfield Services Betterways Continuous Improvement program
- 56. Site Hazard Register TMD-6023-SA-0001
- 57. Fuel Gas Delivery Agreement (GDA) with Verve Energy
- 58. Fuel Oil Supply Agreement (Caltex Australia)
- 59. Connection Agreement DMS#1378308 v5
- 60.0 & M Alliance Agreement
- 61. Water Supply Agreement (with Harvey Water)(Interview only)
- 62. Engineering All Risks Survey Report August 2008
- 63. Dangerous Goods Review for Transfield Services: Dangerous Goods Storage at KPS April 2008
- 64. Electrical equipment in hazardous Areas (EEHA) Survey and Report May 2008
- 65. Performance Audit and Asset management Review for Transfield Services KPS July 2008
- 66. Dangerous goods Review for Transfield Services: Dangerous Goods Storage at KPS February 2009
- 67. Kemerton Only Major Maintenance Costs and Cash Flows V4

The review was conducted in conjunction with the Performance Audit during May 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 44 hours of Premmck Management Service's (Neema Premji and Brian McKenry) time.



## 3.2 Objective of the Asset Management System Review

The objective of the review is to examine the effectiveness of the processes used by Transfield Services: Kemerton Power Station 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 (July 2009) 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 5: Asset management process and policy definition adequacy ratings

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



#### Table 6: Asset management performance ratings

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

#### **Deviation from the Audit Plan**

There were several changes made to the risk assessment ratings conducted for the Audit Plan for the Asset Management System Review. The revisions only involve the adequacy of existing controls. These changes are highlighted within Appendix 2 of the report.



## Table 7: Previous Asset Management Review Key Findings, Recommendation, Post Audit Plan & Progress

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan	Outcome
2.6	Asset Creation/Acquisition - Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	At the time of the audit a central database of legal obligations did not exist. Diaries/spreadsheets were being used by personnel to monitor ongoing obligations	A central database and the use of SAP to trigger legal obligations would reduce the risk of omission	ACTION: Develop a database of legal/safety/ environmental obligations and to utilise SAP to trigger key dates RESPONSIBILITY: Plant Manager (KPS Transfield Services) DATE: 5 <sup>th</sup> September 2008	Licence and regulatory requirements database TMF– 6023-AD-0002 created to track and trigger legal obligations.
4.4	Environmental analysis – Compliance with statutory and regulatory requirements	At the time of the audit a central database of statutory and regulatory requirements did not exist. Diaries were being used by personnel to monitor ongoing requirements	A central database and the use of SAP to trigger key dates would reduce the risk of omission	ACTION: Develop a database of statutory/regulatory obligations and to utilise SAP to trigger key dates RESPONSIBILITY: Plant Manager (KPS Transfield Services) DATE: 5 <sup>th</sup> September 2008	Licence and regulatory requirements database TMF– 6023-AD-0002 created to track and trigger legal obligations.
5.3	Asset Operations – Risk Management is applied to prioritise operations tasks	System and processes heavily reliant on personnel to manually plan, track, prioritise and schedule operational tasks	Full implementation of SAP would assist personnel to prioritise operational tasks	ACTION: Full implementation of SAP RESPONSIBILITY: Plant Manager (KPS Transfield Services) DATE: 5 <sup>th</sup> September 2008	SAP has been fully implemented

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Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan	Outcome
5.4	Asset Operations - Assets are documented in an Asset Register including asset type, location, material, plans of components, an assessment of asset physical/structural and accounting data Effectiveness Rating - 3	Asset maintenance and condition history is not entered into SAP where the asset register resides	Full implementation of SAP would enable a full history of the plants condition to be maintained	ACTION: Full implementation of SAP RESPONSIBILITY: Plant Manager (KPS Transfield Services) DATE: 5 <sup>th</sup> September 2008	SAP has been fully implemented
6.1	Asset Maintenance – Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost Effectiveness Rating – 2	Maintenance tasks are scheduled, resourced and tracked manually. Priority is given to critical plant only, non-critical plant is run to failure and replaced or repaired	Full implementation of SAP would enable all aspects of maintenance for both critical and non-critical plant to be effectively prioritised and managed.	ACTION: Full implementation of SAP RESPONSIBILITY: Plant Manager (KPS Transfield Services) DATE: 5 <sup>th</sup> September 2008	SAP has been fully implemented
6.2	Asset Maintenance - Maintenance policies and procedures are documented and linked to service levels required Effectiveness Rating – 2	Maintenance policies and procedures are established and implemented for critical plant. Only fault maintenance is presently being performed on non- critical plant	As above	As above	SAP has been fully implemented

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Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan	Outcome
6.3	Asset Maintenance - Regular inspections are undertaken of asset performance and condition Effectiveness Rating – 2	Inspections of critical plant are undertaken. Records of inspections were available for review on site. Inspections of non-critical plant presently being performed on an informal basis.	As above	As above	SAP has been fully implemented
6.4	Asset Maintenance - Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule Effectiveness Rating – 2	Emergency, corrective and preventative maintenance plans for critical plant are established – tracked manually. Only fault maintenance is presently being performed on non- critical plant.	As above	As above	SAP has been fully implemented
6.5	Asset Maintenance – Failures are analysed and operation/maintenance plans are adjusted where necessary Effectiveness Rating – 3	The analysis of failures is effective for critical plant however operations/maintenance plans have to be annually adjusted and tracked	As above	As above	SAP has been fully implemented
6.6	Asset maintenance – Risk management is applied to prioritise maintenance	Oil sampling and vibration analysis forms part of the risk management approach	A risk management approach should be applied to all plant.	ACTION: A risk matrix should be developed for all plant as part of the full	Risk Matrix developed



Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan	Outcome
	tasks Effectiveness Rating - 2	for critical plant only.		implementation of SAP RESPONSIBILITY: Plant Manager (Transfield Services KPS) DATE: 5 <sup>th</sup> September 2008	
7.7	Asset Management Information Systems – Key computations related to licensee performance reporting are materially accurate	The measurement of station output is reliant on the accuracy of WPC metering which is not under the control of KPS	An assessment should be undertaken to the viability of periodic independent measurement of output to verify WPC metering, if viable periodic measurements should be taken to determine accuracy of metering	ACTION: As per recommendation RESPONSIBILITY: Plant Manager (Transfield Services KPS) DATE: 5 <sup>th</sup> September 2008	Completed Transfield Services have reviewed this recommendation and has assessed that they are comfortable with WPC metering and their control measures regarding this equipment.



#### Summary of Findings

After reviewing the effectiveness of Transfield Services asset management system the audit priorities were revised as summarised in Table 8 below. On the scale of 0 to 5, priority 1 being the highest risk rating moving down to priority 5 the lowest risk rating. Appendix 2 details the findings of each of the Asset Management Elements and sub-elements detailing observations and where applicable recommendations.

#### Table 8: Summary of post audit findings

AMS Audit Elements	Asset Management System Post - Audit Priority Rating						
	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Total	Comments
1. Asset Planning				5	3	8	
2. Asset creation/acquisition				1	4	5	
3. Asset disposal					4	4	
4. Environmental analysis					4	4	
5. Asset operations					5	5	
6. Asset maintenance				3	3	6	
7. Asset Management Information System				2	5	7	
8. Risk Management					3	3	
9. Contingency Planning					1	1	
10. Financial Planning				4	5	6	



11. Capital expenditure planning			4	4	
12. Review of Asset Management System			1	1	
Total		13	42	55	

#### **Recommendations and Post Review Implementation Plans**

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

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
7.5	Asset Management Information System – Data backup procedures appear adequate Review Priority - 4 Effectiveness Rating – A2	Currently the backup procedure is understood through verbal instructions and no procedure was viewed.	To develop procedural documentation to detail the process in relation to daily and monthly back up of server.	ACTION: A procedure will be developed and implemented at site regarding data back-ups. RESPONSIBILITY: Wayne Roberts, Plant Manager DATE: 17 <sup>th</sup> September 2010
7.5	Asset Management Information System – Data backup procedures appear adequate Review Priority - 4 Effectiveness Rating – A2	Since the Station has been operation data has been backed up however a test of retrieving data from backup tapes has never been carried.	To test the backup tapes for effective retrieval of data.	ACTION: Perform data retrieval test of both daily and monthly backups. RESPONSIBILITY: Wayne Roberts, Plant Manager DATE: 17 <sup>th</sup> September 2010

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Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
10.4	Financial Planning- The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period Review Priority – 4	The financial plan forecasts two years (on a monthly basis) of income and operating expenditure, instead of the required five years.	Extend current 2 year plan to 5 years to meet the requirements of criteria 10.4	ACTION: Expand current financial budget plans to rolling 5 year forecasts. RESPONSIBILITY: Geoff Dutton, General Manager Assets. DATE: 1st July 2011
	Effectiveness Rating – A3			



#### 3.4 2010 Post Audit Implementation Plan

As stipulated in section 11.9 of the Audit Guidelines (July 2009), 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 Transfield Services: Kemerton Power Station.

#### 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 Transfield Services reports progress on the Post Audit Implementation Plan to the ERA in the annual Compliance Reports.



## **APPENDIX** 1

## TRANSFIELD SERVICES: KEMERTON POWER STATION PERFORMANCE AUDIT MAY 2010



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness			
GENERATION LIC	CENCE CONDITION 1 - DEFINITIONS						
-	Determined to be not applicable to the audit scope.	Not Applicable [NA]	NOT APPLICABLE				
GENERATION LIC	GENERATION LICENCE CONDITION 2 - GRANT OF LICENCE						
	Generation Licence condition 2.1- Electricity Industry Act 2004 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 [5]	<ul> <li>Transfield Services Kemerton Pty Ltd Generation Licence – EGL5 – Schedule 1</li> <li>Notice – Amendment to Electricity Generation Licence 5 (22 Feb 2007)</li> <li>PPA [DMS # 1366303 V7]</li> <li>Deed of variation no. 2 PPA</li> <li>Discussions with System Management</li> </ul>	The installed capacity of the Unit as defined by EGL5 is 310 MW. The Deed of Variation No.2 PPA aligns with this specification. It is noted that the plant has a capability of achieving an output of 346MW during certain weather conditions i.e. cold winter day. The IMO test to 300 MW and the PPA requires 300 MW tested at 41°C. As System Management take control of the unit as it ramps up above 70MW (or they can start it remotely) and control the generation parameters, any exceedence above this limit is for system stability and emergency purposes only. This was verified through discussions with System Management. For example in response to Veranus Island Gas Crisis in June 2008. Notice published by the ERA of increase in capacity on 22 <sup>nd</sup> February 2007.			



Compliance Reporting Manual Ref	Licence Condition Requirement Risk Assessment		Compliance Rating	Verification/ Tests	Effectiveness
			Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	
GENERATION L	JERATION LICENCE CONDITION 3 - TERM         Generation Licence Condition 3.1 - Electricity Industry Act 2004         The licence commences on the commencement date and continues until the earlier of;         (a) the cancellation of the licence pursuant to clause 7 of this licence;         (b) the surrender of the licence pursuant to clause 8 of this licence; or         (c) the expiry date.         Risk Assessment		Not Rated [NR]	<ul> <li>Compliance Reports during audit period 1<sup>st</sup> April 2008 – 31<sup>st</sup> March 2010</li> <li>Interview with Plant Manager</li> </ul>	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.
			Audit Priority	Corrective Action/Opportunity fo	r Improvement
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Moderate Medium Strong	4	Nil	
GENERATION L	ICENCE CONDITION 4 - FE	ES			



Compliance Reporting Manual Ref	Licence Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness	
85 [TYPE NR]	Generation Licence Condition 4.1 - Electricity Industry Act section 17 (1)The licensee must pay the applicable fees in accordance with the Regulations.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.		Compliant [5]	<ul> <li>Payment of fees before the 20<sup>th</sup> April each year</li> <li>Discussion with Plant Manager</li> <li>Review of payment/pending invoice process</li> <li>TMF-6023-AD-0002 Database Licence and Regulatory Requirements 2010 to 2011</li> </ul>	Licence fees were paid as follows; - ERA Invoice ERA154 (date of issue 25 March 2010) Purchase Order dated for delivery 29 <sup>th</sup> March 2010(PO # 4504138193) paid 7 <sup>th</sup> April 2010. - ERA Invoice ERA103 (date of issue 10 <sup>th</sup> March 2009) Purchase Order dated for delivery 25 <sup>th</sup> March 2009 (PO # 4503385629) paid 7 <sup>th</sup> April 2009 It is noted that payment for the 2008 year was covered in previous audit as invoice received on 18 <sup>th</sup> March 2008. A purchase order system has been established to ensure the payment of licence fees in accordance with legislative requirements. In addition, the organisation has included the requirement in the Database Licence and Regulatory Requirements [TMF-6023-AD-0002]	
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for	r Improvement	
	Likelihood Consequence	Unlikely Minor	5	Nil		
	Inherent Risk	Low				
	Adequacy of Controls Strong					



Compliance Reporting Manual Ref	Licence Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness		
GENERATION LICENCE CONDITION 5 - COMPLIANCE							
86 [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 [5]	<ul> <li>Discussion with Plant Manager</li> <li>O &amp; M Alliance Agreement</li> <li>Operational Procedures</li> <li>Incident Management</li> <li>Emergency Procedures</li> <li>Availability criteria; financial penalties, detailed in PPA [DMS # 1366303 V7] and Asset Site Agreement [V6]</li> <li>Secure site</li> <li>HSE Management Plans</li> <li>Safety Compliance Audits</li> <li>Monthly Reports</li> <li>SAP</li> <li>Certification to ISO Standards</li> </ul>	O & M Alliance Agreement adequately addresses requirements to maximise electricity generation; high availability targets are set for Transfield Services Kemerton Power Station (TSKPS), safety and environmental performance requirements are specified. Compliance with the Agreement is monitored by Transfield and the company is certified to ISO9001, ISO14001 and AS/NZS 4801. As such they are regularly audited by an Independent 3 <sup>rd</sup> Party in these management system requirements. The implementation of the SAP system enhances the strength of the maintenance systems.		
			Audit Priority	Corrective Action/Opportunity for	r Improvement		
	Likelihood Consequence Inherent Risk	Unlikely Moderate Medium Strong	4	Nil			



Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Adequacy of Controls				
87 [TYPE 2]	Generation Licence Condition 5.1- Electricity Industry Act section 41 (6) A licensee must pay the costs of taking an interest in land or an easement over land.		Compliant [5]	<ul> <li>Lot 505 on Deposit Plan No. 39528, Kemerton Industrial Park, Wellesley WA 6230</li> </ul>	Licensee owns the land on which the Power Station is located. Record of Certificate of Title sighted.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for	r Improvement
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	
309 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.5(6) 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 Transfield Services Kemerton PowerStation.		Not Applicable [NA]	Not Applicable as Transfield Servi to Electricity Industry Metering Co	ces is not the Network Operator. Reference de.
319	Generation Licence Con	dition 5.1 - Electricity	Not Applicable	Not Applicable as Transfield Servi	ces has no revenue attached to the sale of



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
[TYPE 2]	Industry Metering Code clause 3.11(3)A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	[NA]	electricity. Managed via contracts with Verve. WPN and System Ma have direct control of metering.	
331 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.16(5) 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 [NA]	WPN is responsible for metering and this further defined with Connection Agreement.	
342 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.27 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 [NA]	Tariff meters installed at the Keme Western Power.	erton Power Station are the responsibility of
349 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.4(1) 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 [NA]	Not Applicable as Transfield Services has no revenue attached to the selectricity. Managed via contracts with Verve. WPN and System Manage 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 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.5(1) A Code participant must not knowingly permit the registry to be materially inaccurate.	[NA] electricity. Managed via contracts with Verve. WPN and Syste		
351 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.5(2) 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 [NA]	Not Applicable as Transfield Services has no revenue attached to the s electricity. Managed via contracts with Verve. WPN and System Mana have direct control of metering.	
363 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.4(2) 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 [NA]	Not Applicable as Transfield Services has no revenue attached to th electricity. Managed via contracts with Verve. WPN and System Man have direct control of metering.	
365 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.5(3)	Not Applicable		ices has no revenue attached to the sale of with Verve. WPN and System Management



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	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]	have direct control of metering.	
376 [TYPE 2]	Generation Licence Condition 5.1 - ElectricityIndustry Metering Code clause 5.16A user that collects or receives energy datafrom a metering installation must provide thenetwork operator with the energy data (inaccordance with the communication rules)within the timeframes prescribed.	Not Applicable [NA]		ces has no revenue attached to the sale of with Verve. WPN and System Management
377 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.17(1) 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 [NA]		es has no revenue attached to the sale of with Verve. WPN and System Management
379 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(1) A user must, when requested by the network operator acting in accordance with good	Not Applicable [NA]		es has no revenue attached to the sale of with Verve. WPN and System Management



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	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.			
380 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(2) 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 [NA]	Not Applicable as Transfield Services has no revenue attached to the sale electricity. Managed via contracts with Verve. WPN and System Manage have direct control of metering.	
381 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(3) A user must, after becoming aware of any change in a site's prescribed attributes, notify the network operator of the change within the timeframes prescribed.	Not Applicable [NA]		ces has no revenue attached to the sale of with Verve. WPN and System Management
382 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(4) 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 [NA]		es has no revenue attached to the sale of with Verve. WPN and System Management



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
384 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(6) 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 [NA]	Not Applicable as Transfield Services has no revenue attached to the sale electricity. Managed via contracts with Verve. WPN and System Manager have direct control of metering.	
390 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.21(5)       Not Applicable       Not Applicable as Transfield Services has no revenue         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       Not Applicable as Transfield Services has no revenue			
391 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.21(6) A Code participant must not make a test or audit request that is inconsistent with any access arrangement or agreement.	Not Applicable [NA]		ces has no revenue attached to the sale of with Verve. WPN and System Management
409 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.27 Upon request, a current user must provide the network operator with customer attribute information that it reasonably believes are missing or incorrect within the	Not Applicable [NA]	Not Applicable as Transfield Services has no revenue attached to the sale of electricity. Managed via contracts with Verve. WPN and System Managem have direct control of metering.	



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	timeframes prescribed.			
416 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 6.1(2) 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 [NA]	electricity. Managed via contracts with Verve. W/PN and System Man	
418 [TYPE NR]	Generation Licence Condition 5.1 - ElectricityIndustry Metering Code clause 7.2(1)Code participants must use reasonableendeavours to ensure that they can send andreceive a notice by post, facsimile andelectronic communication and must notifythe network operator of a telephone numberfor voice communication in connection withthe Code.	Not Applicable [NA]		ces has no revenue attached to the sale of with Verve. WPN and System Management
420 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.2(4) 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 [NA]	Not Applicable as Transfield Services has no revenue attached to the electricity. Managed via contracts with Verve. WPN and System Mana have direct control of metering.	
421	Generation Licence Condition 5.1 - Electricity	Not Applicable		ces has no revenue attached to the sale of with Verve. WPN and System Management



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
[TYPE 2]	Industry Metering Code clause 7.2(5) 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.	[NA]	have direct control of metering.	
422 [TYPE 2]	Generation Licence Condition 5.1 - ElectricityIndustry Metering Code clause 7.5A 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 [NA]	Not Applicable as Transfield Services has no revenue attached to the sale electricity. Managed via contracts with Verve. WPN and System Managerr have direct control of metering.	
423 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.6(1) A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.	Not Applicable [NA]	Not Applicable as Transfield Services has no revenue attached to the electricity. Managed via contracts with Verve. WPN and System Man have direct control of metering.	
424 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(1) 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	Not Applicable [NA]		es has no revenue attached to the sale of with Verve. WPN and System Management



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	dispute under or in connection with the Electricity Industry Metering Code by negotiations in good faith.			
425 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(2) 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 [NA]	Not Applicable as Transfield Services has no revenue attached to the sale electricity. Managed via contracts with Verve. WPN and System Manager have direct control of metering.	
426 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(3) If the dispute is not resolved within 10 business days after the dispute is referred to senior management negotiations, the 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.	Not Applicable [NA]		es has no revenue attached to the sale of with Verve. WPN and System Management
427 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(4) If the dispute is resolved by representative negotiations, senior management negotiations or CEO negotiations, the	Not Applicable [NA]	Not Applicable as Transfield Services has no revenue attached to the sale or electricity. Managed via contracts with Verve. WPN and System Manageme have direct control of metering.	



Compliance Reporting Manual Ref	Licence Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	disputing parties must p signed record of the res the resolution.	-			
428 [TYPE NR] Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.3(2) 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 [NA]	Not Applicable as Transfield Services has no revenue attached to the sale of electricity. Managed via contracts with Verve. WPN and System Management have direct control of metering.		
-	<ul> <li>Generation Licence Condition 5.1 - Review of Government Gazette Amendments</li> <li>GG54 Electricity Industry Act 2004.p1083. 03 April 2009</li> <li>GG156 Electricity Industry Act 2004.p3667. 12-Sep-2006</li> </ul>		Compliant [5]	<ul> <li>Discussion with Plant Manager</li> <li>Corporate requirements in relation to compliance and reputation</li> </ul>	Transfield Services have in house legal counsel and keep abreast of legal changes through this process as well as through communications received from the Authority.
	Risk Assessment	I	Audit Priority	<b>Corrective Action/Opportunity fo</b>	r Improvement
	LikelihoodUnlikelyConsequenceModerateInherent RiskMediumAdequacy of ControlsStrong		4	Nil	



Compliance Reporting Manual Ref	Licence Conditio	on Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	Generation Licence condition 5.2 Subject to the provisions of any applicable legislation, the Authority may direct the Licensee in writing to do any measure necessary to: (a) correct the breach of any applicable legislation; or (b) prevent the breach of any applicable legislation occurring again, and specify a time limit by which such action must be taken		Not Rated [NR]	<ul> <li>Discussion with Plant Manager</li> <li>Legal Advisory Services</li> </ul>	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 Consequence Inherent Risk Adequacy of Controls	Unlikely Moderate Medium Strong	4	Nil	
GENERATION L	ICENCE CONDITION 6 - TR	ANSFER OF LICENCE			
	Generation Licence condition 6.1 - Electricity Industry Act section 18 -Transfer of a licence This licence may be transferred only in accordance with the Act.		Not Rated [NR]	<ul> <li>Discussion with Plant Manager</li> </ul>	No transfer of licence undertaken during the audit period. As such assessment of compliance with clause cannot be undertaken.
1	Risk Assessment		Audit Priority	Corrective Action/Opportunity fo	



Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Likelihood	Unlikely	4	Nil	
	Consequence	Moderate			
	Inherent Risk	Medium			
	Adequacy of Controls	Strong			
GENERATION L	ICENCE CONDITION 7 - CA	NCELLATION OF LICENO	CE		
	Generation Licence con	•	Not Applicable	Determined not to be applicable to	o audit
	Industry Act section 35 licence	-Cancellation of a	[NA]		
	This <i>licence</i> may be cancelled only in accordance with the <i>Act</i> .				
GENERATION L	ICENCE CONDITION 8 - SU	IRRENDER OF LICENCE		-	
-	Generation Licence con	•	Not Applicable	Determined not to be applicable to	o audit
	Industry Act 2004 (Sche		[NA]		
	The <i>licensee</i> may surrer time by written <i>notice</i> t				
-	Generation Licence con	dition 8.2	Not Applicable	Determined not to be applicable to	o audit
	The surrender of the licence will take effect		[NA]		
	on the day that the Authority publishes a notice of the surrender in the Gazette.				
-	Generation Licence condition 8.3		Not Applicable	Determined not to be applicable to	o audit
	The licensee will not be	entitled to a refund	[NA]		



Compliance Reporting Manual Ref	Licence Condit	ion Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	of any fees by the Aut	hority.			
GENERATION	LICENCE CONDITION 9 - I	RENEWAL OF LICENCE			
-	Generation Licence of This licence may be re accordance with the A	enewed only in	Not Applicable [NA]	Determined not to be applicable t	to audit
GENERATION	LICENCE CONDITION 10 -	AMNENDMENT OF LICEN	NCE ON APPLICATION C	OF THE LICENSEE	
-	<b>Generation Licence condition 10.1</b> The licensee may apply to the Authority to amend the licence in accordance with the Act.		Not Applicable [NA]	Determined not to be applicable to audit. Noted: Amendment relating to plant capacity addressed in previous audit.	
GENERATION	LICENCE CONDITION 11 -	AMENDMENT OF LICENC	CE BY THE AUTHORITY		
	<b>Generation Licence condition 11.1</b> Subject to any applicable legislation, the Authority may amend the licence at any time in accordance with this clause		Compliant [5]	<ul> <li>Discussions with Plant Manager</li> <li>GG54 p1090 3/4/09</li> </ul>	Changing the definition of customer to be consistent with the definition in the Electricity Industry Act 2004 Organisation was aware of changes and relevant documentation was reviewed on file.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for	or Improvement
	Likelihood Consequence	Unlikely Moderate	4	Nil	



Compliance Reporting Manual Ref	Licence Condition	on Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	Inherent Risk Adequacy of Controls	Medium Strong			
	Generation Licence condition 11.2Before amending the licence under clause11.1, the Authority must:(a) provide the licensee with written notice ofthe proposed amendments underconsideration by the Authority;(b) allow 15 business days for the licensee tomake submissions on the proposedamendments; and(c) take into consideration those submissions.		Compliant [5]	<ul> <li>Discussions with Plant Manager</li> <li>Decision on Amendment to Customer Definition - Electricity Licences (29/01/09)</li> </ul>	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 fo	r Improvement
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	
	<b>Generation Licence condition 11.3</b> This clause also applies to the substitution of the existing licence.		Not Applicable [NA]	Determined not to be applicable t	o audit
	Generation Licence co For avoidance of doubt		Not Applicable	Determined not to be applicable t	o audit



Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	have to pay an associat licence fee for the purp		[NA]		
GENERATION L	ICENCE CONDITION 12 - I	EXPANSION OF GENERA	TING WORKS		
	Generation Licence condition 12.1 The licensee may expand or reduce the generating works if the relevant expansion or reduction is provided for in the asset management system.		Compliant [4]	<ul> <li>O&amp;M Alliance Agreement Clause B14.2</li> <li>The Deed of Variation No.2 PPA</li> <li>Wet Compression Project</li> <li>Risk Review</li> <li>Yearly plans</li> <li>Asset Management Planning Process</li> <li>Annual Compliance Reports to the ERA due 31<sup>st</sup> August</li> </ul>	In June 2008 the wet compression enhancement project was successfully completed with both units achieving power increases of 17% based upon a compressor inlet temperature of 41°C. As required by the O&M Alliance Agreement Clause B14.2 the Asset Management Plan provided for the increase capacity as a result of the Wet Compression Project.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity fo	r Improvement
	LikelihoodUnlikelyConsequenceMajorInherent RiskHighAdequacy of ControlsStrong		2	<ol> <li>Consideration could be given to including this requirement in Asset Management Plan as a section for consideration i.e. any pl change to generating works would require ERA notification.</li> </ol>	
103 [TYPE 2]	Generation Licence condition 12.2 - Electricity Industry Act section 11		Compliant [4]	<ul><li>O&amp;M Alliance Agreement</li><li>Compliance Reports</li></ul>	The expansion in generating works was included within the Asset Management System.



Compliance Reporting Manual Ref	Licence Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	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			<ul> <li>Risk Review</li> <li>Annual business plans</li> <li>Asset Management Planning Process</li> </ul>	It is noted that this issue identified in the Annual Compliance Report for 1 July 2008 to 30 June 2009 related to the failure to inform the Authority of the asset management system implementation. Refer to 83.
	Risk Assessment	Γ	Audit Priority	Corrective Action/Opportunity fo	r Improvement
	Likelihood	Unlikely	2	As for Recommendation 1	
	Consequence	Major			
	Inherent Risk	High			
	Adequacy of Controls	Strong			
104 [TYPE 2]	Electricity Industry Act section 11		Not Rated [NR]	•	eduction outside the licence area during the of compliance with this clause has not been
	Risk Assessment		Audit Priority	Corrective Action/Opportunity fo	r Improvement
	Likelihood	Unlikely	5	Nil	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
-	Generation Licence con	dition 12.4	Not Rated	There has no requirement to pay f	ees in accordance with the Regulations. As



Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	The licensee must pay accordance with the Re		[NR]	such assessment of compliance wi	th this clause has not been made.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for	r Improvement
	Likelihood Consequence Inherent Risk	Unlikely Minor Low	5	Nil	
	Adequacy of Controls	Strong			
[TYPE 2]	05       Generation Licence condition 13.1 - Electricity Industry Act section 11         TYPE 2]       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 [5]	<ul> <li>O&amp;M Alliance requirements</li> <li>TSI Fund Annual Report 2008 (http://www.tsinfrastructuref und.com/content/AR2008/)</li> <li>TSI Fund Annual Report 2009 (http://www.tsinfrastructuref und.com/content/AR2009/)</li> <li>Monitored accounting processes</li> <li>Financial Audits</li> </ul>	The independent auditors of the Financial Report (Price Waterhouse Coopers) have included a statement of compliance with Australian Accounting Standards (including the Australian Accounting Interpretations) and the <i>Corporations</i> <i>Regulations 2001</i> for reports published during the audit period of 1/4/08 to 31/3/10.
	Dick According to			Corporate Governance	
	Risk Assessment	Unlikely	Audit Priority 5	Corrective Action/Opportunity fo	rimprovement



Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Consequence Inherent Risk Adequacy of Controls	Minor Low Strong			
GENERATION L	ICENCE CONDITION 14 - IN	IDIVIDUAL PERFORMA	NCE STANDARDS		
	<b>Generation Licence condition 14.1</b> Performance standards are contained in applicable legislation.		Not Applicable [NA]	Determined not to be applicable to	o the audit scope.
	Generation Licence condition 14.2 The Authority may prescribe individual performance standards in relation to the licensee of its obligations under this licence or the applicable legislation.		Not Applicable [NA]	Determined not to be applicable to	o the audit scope.
	Generation Licence condition 14.3 Before approving any individual performance standards under this clause, the Authority will: (a) provide the licensee with a copy of the proposed individual performance standards; (b) allow 15 business days for the licensee to make submissions on the proposed individual performance standards; and (c) take into consideration those submissions		Not Applicable [NA]	Determined not to be applicable to the audit scope.	



Compliance Reporting Manual Ref	Licence Conditio	on Requirement	Compliance Rating	Verification/ Tests	Effectiveness
106 [TYPE 2]	Generation Licence condition 14.4 - Electricity Industry Act section 11 Once approved by the Authority, the performance standards are included as additional terms and conditions to this licence. A licensee must comply with any individual performance standards prescribed by the Authority.		Not Rated [NR]		ed any individual reporting standards to sment of compliance with clause cannot be
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	
GENERATION	LICENCE CONDITION 15 - F	PERFORMANCE AUDIT	<u> </u>		
81 [TYPE NR]	Generation Licence Condition 15.1 -         Electricity Industry Act section 13(1)         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 [5]	<ul> <li>Various email correspondence</li> <li>Database Licence and Regulatory Requirements 2010 to 2011 [TMF-6023-AD- 0002]</li> </ul>	The requirement for the audit is monitored by the Plant Manager. The requirement was also identified in the Database Licence and Regulatory Requirements.
	Risk Assessment		Audit Priority		



Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	
107 [TYPE 2]	Generation Licence condition 15.2 - Electricity Industry Act section 11 A licensee must comply, and require its auditor to comply, with the Authority's standard audit guidelines dealing with the performance audit.		Compliant [5]	<ul> <li>Compliance with ERA process</li> <li>Discussion with Plant Manager</li> <li>Correspondence with ERA</li> </ul>	Direct instructions from Licensee to Auditor to comply with the ERA guidelines. Copies of communications received from ERA relating to audit requirements sent by Transfield Services through to Auditor to convey requirements specifically the undertaking of audits in compliance with the Audit Guidelines: Electricity, Gas and Water Licences.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity fo	r Improvement
	LikelihoodUnlikelyConsequenceMinorInherent RiskLowAdequacy of ControlsStrong		5	Nil	
-	<b>Generation Licence condition 15.3</b> 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 [NA]	Determined not to be applicable undertaken.	to audit scope as there were no reviews



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness	
-	Generation Licence condition 15.4 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 [NA]	Determined not to be applicable to audit scope as there were no review undertaken.		
GENERATION I 82 [TYPE NR]	ICENCE CONDITION 16 - ASSET MANAGEMENT SY Generation Licence Condition 16.1 - Electricity Industry Act section 14 (1)(a)	Non-Compliant [2]	<ul> <li>Asset Management Plan</li> <li>SAP Computerised Maintenance Management</li> </ul>	In the previous audit report, for the 2006- 2008 Reporting Period, the Licensee was noted to be non compliant for not	
	The <i>licensee</i> must provide for, and notify the Authority of, an <i>asset management system</i> in relation to the <i>generating works</i> within 2 <i>business days</i> from the <i>commencement date</i> or from the completion of construction of the <i>generating works</i> , whichever is later.		<ul> <li>system (CMMS)</li> <li>Communications to ERA 29/7/08</li> <li>Ongoing Operations and Maintenance Programmes</li> <li>Operations and Maintenance Contract</li> <li>Asset Site Agreement</li> </ul>	notifying the Authority of an Asse Management System within 2 busines days from the commencement date of works. This issue was rectified in a letter to the ERA on the 29 <sup>th</sup> of July 2008. As result of the timing for notification th Licensee is non-compliant for a period of 120 days within this audit period. Ther are no outstanding actions in relation to this non-compliance.	
				Although the Licensee, completed the Wet Compression Project in June 2008 it is not considered <i>generating works</i> . The project	



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
				optimised the Kemerton Power Station's performance to achieve name plate rating in all weather conditions and as such is not considered a change in <i>generating</i> <i>works</i> . Which is defined in the Schedule 1 (3.1 & 3.2) of the Licence to be "Two gas turbine generators primarily operating on gas fuel with liquid fuel as a secondary source and an installed capacity of 310MW". The enhancement of the involved using wet compression technology by injecting small water droplets into the gas turbine compressor inlet. This water injection into the compressor inlet creates an inter-cooling effect which can increase gas turbine power. The Asset Management Plan provided for the wet compression project.
				Since the previous audit the organisation has further implemented SAP to co- ordinate the maintenance and scheduling aspects of the asset management system. This has proved an effective measure in achieving the requirements of records of maintenance history and scheduling of activities. Personnel have undergone SAP training. It is noted that Transfield Services Asset Management System contains the cornerstone application SAP.
	Risk Assessment	Audit Priority	<b>Corrective Action/Opportunity for</b>	r Improvement



Compliance Reporting Manual Ref	Licence Condition RequirementLikelihoodProbableConsequenceModerateInherent RiskMediumAdequacy of ControlsModerate		Compliance Rating	Verification/ Tests	Effectiveness	
			4	Authority outlining proje project does not require	s to include a trigger to correspond with the ct and requesting confirmation that the conditions of Clause 16.1 to avoid future nclusion in the capital works approval echanism.	
83 [TYPE 2]	Generation Licence Condition 16.2 - Electricity Industry Act section 14 (1)(b)A licensee must notify details of the asset management system and any substantial changes to it to the Authority.		Compliant [4]	<ul> <li>Discussion with Plant Manager</li> <li>Compliance Report 1 July 2008 to 30 June 2009</li> <li>Database Licence and Regulatory Requirements 2010 to 2011 [TMF-6023-AD- 0002]</li> <li>Various email communications</li> </ul>	In the Annual Compliance Report for 1 July 2008 to 30 June 2009 the organisation detailed the non-compliance relating to the failure to notify the Authority of a substantial change to the Asset Management System. In a letter to the Authority dated 29 <sup>th</sup> July 2008 the licensee rectified this issue. It is noted that this was identified in the previous audit report as a requirement after discussions with the Secretariat.	
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement		
	Likelihood Consequence Inherent Risk Adequacy of Controls	Probable Moderate Medium Moderate	4	•	audit of the licence requirements may also assist the in ensuring key timeframes are achieved.	
84 [TYPE NR]	Generation Licence Condition 16.3 - Electricity Industry Act section 14 (1)(c) A licensee must provide the Authority with a		Compliant [5]	<ul> <li>Notification of audit due date from the Authority</li> <li>Database Licence and</li> </ul>	GES has been appointed in accordance with the Audit Guidelines 2009. Preparation of this report indicates compliance with this requirement. Further	



Compliance Reporting Manual Ref	Licence Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	report by an independe effectiveness of its asse every 24 months, or suc determined by the Auth	t management system ch longer period as		Regulatory Requirements 2010 to 2011 [TMF-6023-AD- 0002] Fortnightly management teleconference	it is noted in the Database Licence and Regulatory Requirements 2010-2011.
	Risk AssessmentLikelihoodConsequenceInherent RiskAdequacy of Controls	Unlikely Minor Low Strong	Audit Priority 5	Corrective Action/Opportunity fo	n improvement
108 [TYPE 2]	Generation Licence cor Electricity Industry Act A licensee must comply licensee's expert to con aspects of the Authority dealing with the asset n	<b>section 11</b> , and must require the nply, with the relevant /'s standard guidelines	Compliant [4]	<ul> <li>Compliance with ERA process</li> <li>Management Review processes</li> <li>Discussion with Plant Manager</li> <li>ERA approved auditor selected</li> </ul>	Direct instructions from Licensee to Auditor to comply with the ERA guidelines. Copies of communications received from ERA relating to audit requirements sent by Transfield Services through to Auditor to convey requirements specifically the undertaking of audits in compliance with the Audit Guidelines: Electricity, Gas and Water Licences
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for	r Improvement
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
-	<b>Generation Licence condition 16.5</b> Electricity Industry Act section 11The licensee may seek a review of any of the requirements of the Authority's standard guidelines dealing with the asset management system in accordance with clause 21.1.	Not Applicable [NA]	Determined to be Not Applicable to Audit	
-	Generation Licence condition 16.6 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 [NA]	Determined to be Not Applicable to Audit	
GENERATION L	Generation Licence condition 17.1 - Electricity Industry Act section 11The licensee must report to the Authority: (a) if the licensee is under external administration as defined by the Corporations Act 2001 (Cwlth) within 2 business days; or	Compliant [5]	<ul> <li>Alliance Agreement</li> <li>Financial Reports</li> <li>Reporting controls</li> <li>Discussion with Plant Manager</li> </ul>	During the Audit Period 1 <sup>st</sup> April 2008 to 31 <sup>st</sup> March 2010, Transfield Services 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 Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	(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 this licence within 10 business days of the change occurring.				
	A licensee must report to the manner prescribed, external administration significant change in the which the licence was g affect a licensee's abilit obligations.	if a licensee is under or there is a e circumstances upon ranted which may			
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for	r Improvement
	Likelihood	Unlikely	5	Nil	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
GENERATION L	ICENCE CONDITION 18- P	ROVISION OF INFORMA	TION		
110 [TYPE 2]	Generation Licence cor Electricity Industry Act Compliance and Report 2008 section 5.3 and se	section 11 - ting Manual March	Compliant [5]	<ul> <li>Compliance with ERA process</li> <li>Management meeting minutes</li> </ul>	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
	A licensee must provide			<ul> <li>Compliance Reporting Manual March 2008 Section</li> </ul>	to 30 June inclusive) by 31 August immediately following the financial year



Compliance Reporting Manual Ref	Licence Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	manner prescribed, any Authority requires in co functions under the Elec	nnection with its		<ul> <li>5.4 Reporting Cycle</li> <li>EGL5 - Compliance Report 1 July 2008 to 30 June 2009 (i) Initial Report dated 25/08/09 and emailed to the ERA on 25/08/09 @ 10.24am (ii) ERA response Ref D12832 on 9/9/09 raising non- compliance issue (iii) Amended Report dated 10/9/09 and emailed on 24/09/09 @ 4.23pm</li> <li>EGL5 - Compliance Report 1 July 2007 – 30 June 2008 (Dated 25/08/08)</li> <li>Database Licence and Regulatory Requirements 2010 to 2011 [TMF-6023-AD- 0002]</li> </ul>	that is the subject of the report. Compliance Reports were submitted as required to ERA during Audit Period 1 <sup>st</sup> April 2008 to 31 <sup>st</sup> March 2010. However, it is noted that the Compliance Report for the 2008-2009 year was initially submitted 25 <sup>th</sup> August 2009, the Authority then raised an outstanding non-compliance in relation to the Licensee failing to notify the Authority of Asset Management Plan. This item was identified in the previous audit and as the Licensee did not notify the Authority until 120 days into this audit period (i.e 1 April 2008 to 31 <sup>st</sup> March 2010) the non-compliance carried through. This was rectified in a letter to Authority on the 29 <sup>th</sup> July 2008. The 2008/2009 Compliance Report was emailed through to the ERA on the 24 <sup>th</sup> September 2009. The Licence has recorded the requirement in the Database Licence and Regulatory Requirements 2010 to 2011 [TMF-6023- AD-0002]
	Risk Assessment	1	Audit Priority	Corrective Action/Opportunity for	r Improvement
	Likelihood Consequence	Probable Moderate	4	Nil	



Compliance Reporting Manual Ref	Licence Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	Inherent Risk	Medium			
	Adequacy of Controls	Moderate			
GENERATION L	ICENCE CONDITION 19 - P	UBLISHING INFORMAT	ION		
	Generation Licence cor The Authority may direc publish any information timeframe it considers with the licensee or the licensee of its obligation	ct the licensee to within a specified relevant in connection performance by the	Not Applicable [NA]	Determined to be Not Applicable t Transfield Services to publish anyt	o Audit - the Authority has not required hing during the audit period
111 [TYPE 2]	Generation Licence cor Electricity Industry Act A licensee must publish directed by the Authori the timeframes specifie	<b>section 11</b> any information it is ty to publish, within	Not Applicable [NA]	Determined to be Not Applicable t Transfield Servic es to publish any	o Audit - the Authority has not required hing during the audit period
-	Generation Licence con If the licensee considers is confidential it must: (a) immediately notify t (b) seek a review of the in accordance with clau	s that the information he Authority; and Authority's decision	Not Applicable [NA]	Determined to be Not Applicable t	o Audit
-	<b>Generation Licence cor</b> Once it has reviewed th		Not Applicable	Determined to be Not Applicable t	o Audit



Compliance Reporting Manual Ref	Licence Conditio	n Requirement	Compliance Rating	Verification/ Tests	Effectiveness
GENERATION	Authority will direct the accordance with the rev (a) publish the informat (b) publish the informat confidential information modified; or (c) not publish the infor	iew to: ion; ion with the removed or mation.	[NA]		
112 [TYPE 2]	Generation Licence condition 20.1 - Electricity Industry Act section 11 Unless otherwise specified, all notices must be in writing.		Compliant [5]	<ul> <li>Compliance with ERA process</li> <li>Management meeting minutes</li> <li>Use of ERA reporting protocols</li> <li>Certification to ISO 9001.</li> </ul>	Transfield Services maintains formal records of correspondence (email and hardcopy). In addition the organisation is certified to ISO 9001 which has prescriptive requirements for document control, preservation and retrieval.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for	r Improvement
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	
-	Generation Licence con	dition 20.2	Not Applicable	Determined to be Not Applicable t	o Audit



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	A notice will be regarded as having been sent and received:	[NA]		
	(a) when delivered in person to the addressee; or			
	(b) 3 business days after the date of posting if the notice is posted in Western Australia; or			
	(c) 5 business days after the date of posting if the notice is posted outside Western Australia; or			
	(d) if sent by facsimile when, according to the sender's transmission report, the notice has been successfully received by the addressee; or			
	(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 L	ICENCE CONDITION 21 - REVIEW OF THE AUTHOR	RITY'S DECISIONS		
-	Generation Licence condition 21.1	Not Applicable	Determined to be Not Applicable to	o Audit
	The licensee may seek a review of a reviewable decision by the Authority pursuant to this licence in accordance with the following procedure:	[NA]		
	(a) the licensee shall make a submission on the subject of the reviewable decision within 10 business days (or other period as			



Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	approved by the Authority) of the decision; and			
	(b) the Authority will consider the submission and provide the licensee with a written response within 20 business days.			
	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.			



## **APPENDIX 2**

## TRANSFIELD SERVICES: KEMERTON POWER STATION ASSET MANAGEMENT REVIEW MAY 2010



## **Table 1.0 Effectiveness Criteria Descriptors**

1	Key Process - Asset Planning	Outcome			
1	Asset planning strategies are focused on	Integration of asset strategies into operational			
	meeting customer needs in the most	or business plans will establish a framework for			
	effective and efficient manner (delivering	existing and new assets to be effectively utilised			
	00 00 V	and their service potential optimised.			
1.1	the right service at the right price).	ds of all stakeholders and is integrated with business			
1.1	planning process and objectives reliect the need	as of all stakeholders and is integrated with business			
1.2	Service levels are defined				
1.3	Non-asset options (e.g. demand management) a	are considered			
1.4	Lifecycle costs of owning and operating assets a	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	e predicted			
1.8	Plans are regularly reviewed and updated				
2	Key Process - Asset creation/acquisition	Outcome			
	Asset creation/acquisition means the	A more economic, efficient and cost-effective			
	provision or improvement of an asset	asset acquisition framework which will reduce			
	where the outlay can be expected to	demand for new assets, lower service costs and			
	provide benefits beyond the year of outlay.	improve service delivery.			
2.1		assets, including comparative assessment of non-			
	asset solutions				
2.2	Evaluations include all life-cycle costs				
2.3	Projects reflect sound engineering and business				
2.4	Commissioning tests are documented and comp				
2.5	Ongoing legal/environmental/safety obligations of				
3	Key process - Asset disposal	Outcome			
	Effective asset disposal frameworks	Effective management of the disposal process			
	incorporate consideration of alternatives	will minimise holdings of surplus and under-			
	for the disposal of surplus, obsolete,	performing assets and will lower service costs.			
	under-performing or unserviceable assets.				
	Alternatives are evaluated in cost-benefit				
	terms				
3.1	Under-utilised and under-performing assets are process	identified as part of a regular systematic review			
3.2		nance are critically examined and corrective action or			
	disposal undertaken				
3.3	Disposal alternatives are evaluated				
3.4	There is a replacement strategy for assets				
4	Key Process - Environmental analysis	Outcome			
	Environmental analysis examines the asset	The asset management system regularly			
	system environment and assesses all	assesses external opportunities and threats and			
	external factors affecting the asset system.	takes corrective action to maintain performance			
	requirements.				
<u>/ 1</u>	Opportunities and threats in the system environm	nent are assessed			
4.1	Opportunities and threats in the system environr				
4.1 4.2		nent are assessed apacity, continuity, emergency response, etc) are			
	Performance standards (availability of service, c	apacity, continuity, emergency response, etc) are			



5	Key Process - Asset operations	Outcome			
	Operations functions relate to the day-to-	Operations plans adequately document the			
	day running of assets and directly affect	processes and knowledge of staff in the			
	service levels and costs.	operation of assets so that service levels can be			
		consistently achieved.			
5.1	Operational policies and procedures are docume				
5.2	Risk management is applied to prioritise operation	ons tasks			
5.3	Assets are documented in an Asset Register inc components, an assessment of assets' physical/				
5.4	Operational costs are measured and monitored				
5.5	Staff receive training commensurate with their re	esponsibilities			
<b>6</b>	Key process - Asset maintenance	Outcome			
U	Maintenance functions relate to the upkeep				
	of assets and directly affect service levels	Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that			
	and costs.	work can be done on time and on cost.			
61	Maintenance policies and procedures are docum				
6.1	Regular inspections are undertaken of asset per				
6.2					
6.3	Maintenance plans (emergency, corrective and p schedule				
6.4	Failures are analysed and operational/maintenar				
6.5	Risk management is applied to prioritise mainter	nance tasks			
6.6	Maintenance costs are measured and monitored	1			
7	Key process - Asset Management	Outcome -			
	Information System (MIS)	The asset management information system			
	An asset management information system	provides authorised, complete and accurate			
	is a combination of processes, data and	information for the day-to-date running of the			
	software that support the asset	asset management system. The focus of the			
	management functions.	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 I	T operators			
7.2	Input controls include appropriate verification and	d validation of data entered into the system			
7.3	Logical security access controls appear adequat	e, such as passwords			
7.4	Physical security access controls appear adequa	ate			
7.5	Data backup procedures appear adequate				
	Key computations related to licensee performance reporting are materially accurate				
7.6		ce reporting are materially accurate			
7.6 7.7					
	Key computations related to licensee performance				
7.7	Key computations related to licensee performant Management reports appear adequate for the license	ensee to monitor licence obligations			
7.7	Key computations related to licensee performant Management reports appear adequate for the lice Key Process - Risk Management	ensee to monitor licence obligations Outcome			
7.7	Key computations related to licensee performant Management reports appear adequate for the lice <b>Key Process - Risk Management</b> <i>Risk management involves the</i>	ensee to monitor licence obligations Outcome An effective risk management framework is			
7.7	Key computations related to licensee performant Management reports appear adequate for the licensee <b>Key Process - Risk Management</b> <i>Risk management involves the</i> <i>identification of risks and their</i>	ensee to monitor licence obligations           Outcome           An effective risk management framework is applied to manage risks related to the			
7.7	Key computations related to licensee performance Management reports appear adequate for the lice <b>Key Process - Risk Management</b> <i>Risk management involves the</i> <i>identification of risks and their</i> <i>management within an acceptable level of</i> <i>risk.</i> Risk management policies and procedures exist	An effective risk management framework is applied to manage risks related to the maintenance of service standards and are being applied to minimise internal and			
7.7 8 8.1	Key computations related to licensee performance Management reports appear adequate for the lice <b>Key Process - Risk Management</b> <i>Risk management involves the</i> <i>identification of risks and their</i> <i>management within an acceptable level of</i> <i>risk.</i> Risk management policies and procedures exist external risks associated with the asset managed	An effective risk management framework is applied to manage risks related to the maintenance of service standards and are being applied to minimise internal and ment system			
7.7	Key computations related to licensee performance Management reports appear adequate for the lice <b>Key Process - Risk Management</b> <i>Risk management involves the</i> <i>identification of risks and their</i> <i>management within an acceptable level of</i> <i>risk.</i> Risk management policies and procedures exist	Sensee to monitor licence obligations         Outcome         An effective risk management framework is         applied to manage risks related to the         maintenance of service standards         and are being applied to minimise internal and         ment system         tment plans are actioned and monitored			



_		-		
9	Key Process - Contingency Planning	Outcome-		
	Contingency plans document the steps to	Contingency plans have been developed and		
	deal with the unexpected failure of an	tested to minimise any significant disruptions to		
_	asset.	service standards.		
9.1		and tested to confirm their operability and to cover		
10	higher risks Key Process - Financial Planning	Outcome		
10	The financial planning component of the asset	A financial plan that is reliable and provides for long-		
	management plan brings together the financial	term financial viability of services		
	elements of the service delivery to ensure its			
	financial viability over the long term.			
10.1		and strategies and actions to achieve the objectives		
10.2	The financial plan identifies the source of funds f			
10.3		ing statements (profit and loss) and statement of		
10.4	financial position (balance sheets)	ome for the next five years and reasonable indicative		
10.4	predictions beyond this period	one for the field five years and reasonable indicative		
10.5	The financial plan provides for the operations an	d maintenance, administration and capital		
	expenditure requirements of the services			
10.6		d expenses are identified and corrective action taken		
11	where necessary	Outcome -		
11	Key Process - Capital Expenditure			
	Planning	A capital expenditure plan that provides		
	<i>The capital expenditure plan provides a</i>	reliable forward estimates of capital		
	schedule of new works, rehabilitation and	expenditure and asset disposal income,		
	replacement works, together with	supported by documentation of the reasons for		
	estimated annual expenditure on each over	the decisions and evaluation of alternatives and		
	the next five or more years.	options.		
	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			
111	<i>firm estimates.</i> There is a capital expenditure plan that covers is	sues to be addressed, actions proposed		
11.1	responsibilities and dates	שליים איז		
11.2	The plan provide reasons for capital expenditure	and timing of expenditure		
11.3	The capital expenditure plan is consistent with th	he asset life and condition identified in the asset		
11.4	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	Outcome		
	The asset management system is regularly	Review of the Asset Management System to		
	reviewed and updated	ensure the effectiveness of the integration of its		
		components and their currency.		
12.1		sset management plan and the asset management		
10.0	system described therein are kept current	formed of the appet management system		
12.2	Independent reviews (e.g. internal audit) are per	ionned of the asset management system		



## Table 2.0 Audit Review Ratings & Recommendations

1       Key Process - Asset Planning         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         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 A	Asset management performance rating 1
Interviewees: Wayne Roberts – Plant Manager, Kemerton Power Station, Transfield Services	<ul> <li>2008/09 Asset Manageme</li> <li>69. Power Generation Service</li> <li>2009/10 Asset Manageme</li> <li>70. O&amp;M Alliance Agreeme</li> <li>71. Transfield Services, Ass Performance (on-line system)</li> <li>(October 2006, rev 10)</li> <li>72. Kemerton Power Station</li> <li>2009</li> <li>73. Kemerton Power Station</li> <li>2008/09</li> <li>75. Kemerton Power Station</li> <li>2009/10</li> <li>76. BW TSIL Group Financ</li> <li>77. KMP 8042 2010 Budget</li> <li>78. 2009 09 Mar KMP Result</li> </ul>	ces: Kemerton Power Station ent Plan nt essing Operational Systems stem), TMD-0000-QA-0007 n Monthly report – February n Monthly report – July 2009 n Quarterly Report – 3 <sup>rd</sup> Quarter n Quarterly Report – 2 <sup>nd</sup> Quarter ials Pack 2009 V2



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	Criteria Eff	ectiveness	91. Operational Services Audit November 2009 Post Review Audit Priority							
	Policy	Performance	Likelihood	Consequence Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy rating	Performance Rating	
			B=probable C=unlikely	2=moderate 3=major	M=medium H=high	M=moderate W=weak				
1.1	Ref docs -1,2,3,4,5,6,7,8,9,10 &11 Interview with the Plant Manager.	The Asset management Plan (AMP) is reviewed and updated annually and the process commences in April of every year with the final AMP endorsed in June. The AMP is a living document	С	1	L	S	5	A	1	



		and is developed on the basis of existing data and levels of service and management strategies. Asset operational planning is based on the long term operation and maintenance requirements as detailed in the AMP and O&M Agreement.							
1.2	Ref docs - 1,2,3,12 & 13 Interview with the Plant Manager	Station capabilities and dispatch requirements are set each day; service levels are defined through Power Purchase Agreements. Long-term service levels are detailed in the O&M agreement.	С	1	L	S	5	A	1
1.3	Ref docs – 1,2,3,12 &13 Interview with the Plant Manager	Agreements with Verve and Western Power are well defines and clear in relation to demand management. Plant can be remotely started and operated from the Western Power Corporation East Perth Control centre.	С	1	L	S	5	A	1
1.4	Ref docs – 1,2,3,7,8,9,10,11, 21 & 23 Interview with the Plant Manager	Life cycle costs are monitored, evaluated, reported and incorporated into the business and budget planning processes.	С	2	М	S	4	A	1
1.5	Ref doc – 1,2,3,9,10,11,16,20, 22 & 23.Interview with the Plant Manager	Transfield Services Infrastructure Limited provides all funds for the operation, maintenance, outages and upgrade of Kemerton Power Station. Fund options include equity raising, bank borrowings and retained profits.	В	2	М	S	4	A	1
1.6	Ref docs – 1,2,3,5,6,7,8,9,10,11,16,20 & 23: cost drivers related to asset operations and maintenance are well defined.	Monthly, Quarterly and Financial reports on budget and cost drivers including unbudgeted expenditure and cost initiatives are monitored and variances actioned. Mature system in place.	В	2	М	S	4	A	1
1.7	Ref Doc- 1,2,3,4,5,6,7,8,14,15,16,17,18,23 & 24 Interview Plant manager	Asset failure analysis utilises a mature system which is audited and actioned annually, prior to the review and update of the AMP for the following year	В	2	L	S	4	А	1
1.8	Ref doc – 1,2,3,4,5,6,7,8,9,10,11,16,19 & 23	All plans are reviewed monthly, quarterly and annually and are well	В	1	М	S	4	А	1



Interview with Plant Manager	documented. Planning process and schedule documented in AMP and the				
	Transfield Services: Assessing Operational Systems Performance (on- line system). A mature system in place.				

Comments & Recommendations	
Nil	



<ul> <li>2 Key Process - Asset creation/acquisition         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             A more economic, efficient and cost-effective asset             acquisition framework which will reduce demand for new         </li> </ul>	Asset management process and policy definition adequacy rating A	Asset management performance rating 1
assets, lower service costs and improve service delivery.		
Interviewees: Wayne Roberts – Plant Manager, Kemerton Power Station, Transfield Services	<ul> <li>2008/09 Asset Manageme</li> <li>2. Power Generation Service 2009/10 Asset Manageme</li> <li>3. O&amp;M Alliance Agreemer</li> <li>4. Transfield Services, Ass Performance (on-line sys (October 2006,rev 10)</li> <li>5. Kemerton Power Station 2009</li> <li>6. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2009/10</li> <li>9. BW TSIL Group Financ 10. KMP 8042 2010 Budget</li> <li>11. 2009 09 Mar KMP Resul 12. SRC : Strategic Review 0</li> </ul>	ces: Kemerton Power Station ent Plan nt essing Operational Systems stem), TMD-0000-QA-0007 n Monthly report – February Monthly report – July 2009 a Quarterly Report – 3 <sup>rd</sup> Quarter a Quarterly Report – 2 <sup>nd</sup> Quarter ials Pack 2009 V2 Its FCST Committee Process sessment TMF-8009-QA-0018



	Policy	Performance	Lik	Com	In Ris	Ade ey co	R pi	PA	Perf F
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
2.1	Ref docs – 1,2,3,4,5,6,7,8,9,10,11,12,14,15 & 19 Interview with Plant Manager	Capital expenditure process involves application and consultation through the strategic review process and requires a full evaluation of projects, non-asset options are also evaluated as part of the	C	1	L	S	5	А	1



		overall planning process. The capital acquisition and management planning process is well documented, implemented and tested.							
2.2	Ref docs – 1,2,3,4,5,6,7,8,9,10,11,12,13,14 & 19 Interview with Plant Manager	Mature asset creation process in place and was evident in the AMPs and subsequent capital justification inclusion in budgets.	С	1	L	S	5	A	1
2.3	Ref docs – 1,2,3,4,9,10,11,12,13,14,15,17,18 & 20	A system is in place to ensure that projects are fully assessed and reviewed within the business planning process.	В	1	L	S	5	А	1
2.4	Ref doc – 1,2,4, & 21. All commissioning documentation is retained in hard copy and was sighted	Commissioning data is readily available and accessible. Viewed performance tests for Wet Compression project.	С	1	L	S	5	A	1
2.5	Ref doc – 1,2,4,5,6,7,8,15,16,19,20,22,23,24 & 25 interview with Plant manager	Legal/Environmental/Safety obligations are well documented, monitored, actioned and audited.	С	2	М	S	4	А	1

Comments & Recommendations	
Nil	



3 <b>Key process - Asset disposal</b> <i>Effective asset disposal frameworks incorporate</i> <i>consideration of alternatives for the disposal of surplus,</i> <i>obsolete, under-performing or unserviceable assets.</i> <i>Alternatives are evaluated in cost-benefit terms</i>	Asset management process and policy definition adequacy rating A	Asset management performance rating 1				
OutcomeEffective management of the disposal process will minimiseholdings of surplus and under-performing assets and willlower service costs.						
	Relevant documentation: 1. Power Generation Servic 2008/09 Asset Managem	ces: Kemerton Power Station ent Plan				
	<ol> <li>Power Generation Service</li> <li>2009/10 Asset Management</li> <li>O&amp;M Alliance Agreement</li> </ol>					
	4. Transfield Services, Ass					
	5. 2009 09 Mar KMP Resu					
	<ol> <li>6. SRC : Strategic Review</li> <li>7. EADR Process based via</li> </ol>					
	<ul> <li>8. Transfield Services Infrastructure Fund / Transfield Services Alliance Management Team (AMT) meeting Minutes Mar 2010</li> </ul>					
	9. Project Leader: Kemerton Power Station 25.5 year – Forecast Model					
Interviewees:		M Technical and Environmental				
Wayne Roberts – Plant Manager, Kemerton Power Station, Transfield Services	Due Diligence Kemerton 11. Performance Test For Pr DGTRP-2007-000089					



	Criteria Effec	tiveness	Post Review Audit Priority							
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	<b>Performance</b> 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				
3.1	Ref docs – 1,2,3,4,5,6,7 & 9 Interview Plant Manager	Processes and systems are well documented and understood and in place to identify under -utilised / performing assets as the plant matures. Plant is still in early stages of its life cycle of 25 years.	С	1	L	S	5	A	1	
3.2	Ref docs - 1,2,3,4,5,6,7, 8, 9 & 11 Interview Plant Manager	See comments above	С	1	L	S	5	А	1	
3.3	Ref docs - 1, 2,3,4,5,6,7,9 & 10.	At this early stage in the station's life cycle asset disposal has been monitored. Asset disposal is controlled via the EADR process for the whole of TSIL group.	С	1	L	S	5	A	1	
3.4	Ref docs - 1,2,3,4,5,6,7,8,9 & 10	At this early stage in the station's life cycle asset replacement has been only monitored. As reported in Ref doc -10, that only one year of the expected thirty year life cycle has been consumed up	С	1	L	S	5	A	1	



todate.				todate.							1
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## **Comments & Recommendations**

Comment – Nil.



4	Key Process - Environmental analysisEnvironmental analysis examines the asset systemenvironment and assesses all external factors affecting the asset system.OutcomeThe asset management system regularly assesses external opportunities and threats and takes corrective action to	Asset management process and policy definition adequacy rating A	Asset management performance rating 1
	maintain performance requirements.		
Wa	erviewees: yne Roberts – Plant Manager, Kemerton Power Station, insfield Services	<ol> <li>2008/09 Asset Manageme</li> <li>Power Generation Service 2009/10 Asset Manageme</li> <li>O&amp;M Alliance Agreeme</li> <li>Transfield Services, Ass Performance (on-line syst (October 2006, rev 10)</li> <li>Kemerton Power Station 2009</li> <li>Kemerton Power Station 2008/09</li> </ol>	ces: Kemerton Power Station ent Plan nt essing Operational Systems stem), TMD-0000-QA-0007 n Monthly report – February Monthly report – July 2009 a Quarterly Report – 3 <sup>rd</sup> Quarter a Quarterly Report – 2 <sup>nd</sup> Quarter ials Pack 2009 V2 Its FCST ed via transapp ng system



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	Criteria Effec	tiveness	Post Review Audit Priority							
	Policy	Performance	Likelihood	Consequence 1=uuiou	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating	
			B=probable C=unlikely	2=moderate 3=major	M=medium H=high	M=moderate W=weak				
4.1	Ref docs - 1,2,3,4,5,6,7,8,9,10,11,12,13 ,14,15,18,19,20,21,22 & 23 Interview Plant Manager	A mature system for identification of opportunities and threats in place for all aspects of power generation	С	1	L	S	5	A	1	



		and is well utilised, monitored and audited.							
4.2	Ref docs - 1,2,3,4,5,6,7,8,9,12,13,14,15 ,16,17,19,20,21,22,23,24,25 & 26 Interview with Plant Manager	Data is collected and reported on a regular basis through written reports and face to face meetings to adequately report service standards and take corrective actions, if necessary.	С	1	L	S	5	A	1
4.3	Ref docs – 1,2,3,4,5,6,7,8,9,12,13,14,16 ,17,19,20,23,24,25 & 26 Interview with Plant Manager	Regular reporting occurs to ensure compliance with statutory and regulatory requirements.	С	1	L	S	5	A	1
4.4	Ref docs – 1,2,3,4,5,6,7,8,14,16,24,25 7 26	Monthly reports detail service levels. Variances from service levels are documented and actioned.	С	1	L	S	5	A	1

Comments & Recommendations	
Nil	



<ul> <li>5 Key Process - Asset operations         Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.     </li> <li>Outcome         Operations plans adequately document the processes and knowledge of staff in the operation of assets so that service     </li> </ul>	Asset management process and policy definition adequacy rating A	Asset management performance rating 1
levels can be consistently achieved. Interviewees: Wayne Roberts – Plant Manager, Kemerton Power Station, Transfield Services	<ul> <li>2008/09 Asset Manageme</li> <li>2. Power Generation Service 2009/10 Asset Manageme</li> <li>3. O&amp;M Alliance Agreeme</li> <li>4. Transfield Services, Ass Performance (on-line sys (October 2006,rev 10)</li> <li>5. Kemerton Power Station 2009</li> <li>6. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2009/10</li> <li>9. BW TSIL Group Finance 10. KMP 8042 2010 Budget</li> <li>11. 2009 09 Mar KMP Result</li> <li>12. Power Purchase Agreement Variation</li> </ul>	ces: Kemerton Power Station ent Plan nt essing Operational Systems stem), TMD-0000-QA-0007 n Monthly report – February Monthly report – July 2009 a Quarterly Report – 3 <sup>rd</sup> Quarter a Quarterly Report – 2 <sup>nd</sup> Quarter ials Pack 2009 V2



	Criteria Effec	tiveness	<ul> <li>14. Risk Portal intranet based via transapp</li> <li>15. Training Matrix TMD-6023-LD-0001</li> <li>16. In Sight incident reporting system</li> <li>17. Transfield Services Infrastructure Fund / Transfield Services Alliance Management Team (AMT) meeting Minutes Mar 2010</li> <li>18. Leadership Commitment Program Report Jan to Dec 2009</li> <li>19. Maintenance Policy, Maintenance Policy Report July 2008, Kemerton Maintenance Plan (spreadsheets manually linked)</li> <li>20. Transfield Services: SKM Technical and Environmental Due Diligence Kemerton Power Station</li> <li>21. Operational Services Audit November 2009</li> <li>22. Management/Toolbox meeting Minutes 260210</li> </ul>						
	Policy	Performance	Likelihood	Consequence 1=minor	Inherent Risk rating	Adequacy of existing controls	Review	Adequacy Rating	Performance rating
5.1	Ref docs – 1,2,3,4,5,6,7,8,12,13,17,20 & 21 definition of service level requirements and plant performance requirements	Operations policies and procedures are well documented and reviewed. Evidence exists that procedures are followed. Service levels are defined in the O&M agreement and translated to the AMP and monitored through regular	B=probable C=unlikely C	2=moderate 3=major 1	M=medium H=high L	M=moderate W=weak	5	A	1



		reports.							
5.2	Ref docs – 1,2,4,5,6,7,8,13,14,16,17,20 & 21 Interview with Plant Manager	Operational tasks have been risk assessed and prioritised; all levels of risks are documented in the risk register, monitored, audited and actioned. Evidence of these was viewed.	С	1	L	S	5	A	1
5.3	Ref doc – 1,2,4,13,19, & 20 SAP system	Asset register is maintained and updated in SAP	С	1	L	S	5	А	1
5.4	Ref doc – 5,6,7,8,9,10,11,17,18 &22	Continuous reporting to Power Generation Services Group and Alliance Board.	С	1	L	S	5	A	1
5.5	Ref doc - 15, Training matrix & records	All operations staff has been trained commensurate with their duties. Records for all staff viewed.	С	1	L	S	5	A	1

## **Comments & Recommendations**



6	Key process - Asset maintenanceMaintenance functions relate to the upkeep of assets anddirectly affect service levels and costs.Outcome	Asset management process and policy definition adequacy rating	Asset management performance rating
	Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost.	Α	1
Wa	erviewees: ayne Roberts – Plant Manager, Kemerton Power Station, insfield Services	<ul> <li>2008/09 Asset Manageme</li> <li>2. Power Generation Service 2009/10 Asset Manageme</li> <li>3. O&amp;M Alliance Agreeme</li> <li>4. Transfield Services, Ass Performance (on-line sys (October 2006,rev 10)</li> <li>5. Kemerton Power Station 2009</li> <li>6. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2009/10</li> <li>9. BW TSIL Group Finance 10. KMP 8042 2010 Budget</li> <li>11. 2009 09 Mar KMP Result</li> <li>12. SAP Computerised Main (CMMS)</li> </ul>	ces: Kemerton Power Station ent Plan nt essing Operational Systems stem), TMD-0000-QA-0007 n Monthly report – February Monthly report – July 2009 a Quarterly Report – 3 <sup>rd</sup> Quarter a Quarterly Report – 2 <sup>nd</sup> Quarter ials Pack 2009 V2



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Criteria Effec	tiveness			Post Rev	iew Audit Prie	ority		
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				



6.1	Ref docs – 1,2,3,4,5,6,7,8,12,15 & 22	Maintenance policies and procedures are well documented; linkages exist between the maintenance policies and the required service levels. Planned outages detailed in the AMP reflect the service level as described in the O&M agreement	В	2	М	S	4	A	1
6.2	Ref docs -, 1,2,4,5,6,7,8,12,15,22,23 & 28 – OEM maintenance schedule recommendations have been uploaded on to the SAP system	SAP inspection schedule derived from the OEM manuals dictates the timing of inspections and has been uploaded into SAP CMMS. Schedule will be adjusted as per on going condition monitoring data and experience with the plant requirements is gained over time. Long term inspection schedules are continuously updated on SAP.	В	2	М	S	4	A	1
6.3	Ref docs - 1,2,4,5,6,7,8,12,15,22,23 & 28	Long term maintenance plans are documented in the asset management plan and O&M agreement, short term planning (ie recording of outage work) is collated in SAP.	В	2	М	S	4	A	1



6.4	Ref doc s – 1,2,4,5,6,7,8,12,13,16,18,19 & 24	On a daily basis, via the incident reporting system, any incident is reported, documented and actioned. These are also reported in the monthly, quarterly reports and to Alliance Board.	В	1	L	S	5	A	1
6.5	Ref docs – 1,2,4,12,13,14,16,18,21,23,2 5,26,27 & 28	Risk assessments are carried as maintenance tasks are scheduled and also when uploaded in SAP. Priorities are set primarily using diagnostic tools such as Vibration and Oil sampling. Longer term priorities (ie work planned for outages) is entered and collated in SAP and included in the AMP.	В	1	L	S	5	A	1
6.6	Ref docs – 1,2,3,5,6,7,8,9,10,11 & 20	The O&M agreement sets out the annual costs for the unit including the maintenance budget. The monthly reports include information on maintenance costs and any unbudgeted expenditure.	С	1	L	S	5	A	1

Comments & Recommendations	
Nil	



7	Key process - Asset Management Information System(MIS)An asset management information system is a combinationof processes, data and software that support the assetmanagement functions.OutcomeThe asset management information system providesauthorised, complete and accurate information for the day-to-date running of the asset management system. The focusof the review is the accuracy of performance informationused by the licensee to monitor and report on servicestandards.	Asset management process and policy definition adequacy rating A	Asset management performance rating 1
Wa	erviewees: yne Roberts – Plant Manager, Kemerton Power Station, nsfield Services	<ul> <li>2008/09 Asset Manageme</li> <li>2. Power Generation Service 2009/10 Asset Manageme</li> <li>3. O&amp;M Alliance Agreemen</li> <li>4. Transfield Services, Asse Performance (on-line syst (October 2006, rev 10)</li> <li>5. Kemerton Power Station 2009</li> <li>6. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2009/10</li> </ul>	ces: Kemerton Power Station ent Plan nt



		10. OEM O&M manuals (Hard copies)						
			nnual mon					
			026/2004/5)			A Assess	nent 1499	),
		Statement 645 1 <sup>st</sup> Dec 2009						
		12. Training Matrix TMD-6023-LD-0001						
			n Sight inci	-				
		-	ransfield S					
			ervices Alli		agement T	eam (AN	IT) meeti	ng
			Iinutes Ma			Б		
			eadership ( 009	Commitm	ent Progra	m Repor	t Jan to I	Jec
		16. T	ransfield S	ervices: S	KM Techni	ical and ]	Environn	nental
		D	ue Diligenc	e Kemert	on Power S	Station		
		<b>17.</b> C	perational	Services A	Audit Nove	mber 200	)9	
			lanagemen		0			
			atabase Lio		0	-		
			<sup>C</sup> hange Man	0			-	
			hange to Pl P-0001	lant / Con	trol System	n Procedu	ure TMP	-8009-
			Change to Pl P-0002	ant / Con	trol System	n Registe	r TMD-8	009-
			Change to P 001	ant / Con	trol System	ı Form T	MF-8009	-OP-
			ower Purch	ase Agree	ement DMS	5#136630	3 & Deed	l of
			ariation	0				
		25. Daily Back up Spreadsheet						
Criteria Effec	tiveness		-		view Audit Pri	ority		
Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	<b>Performance</b> Rating
		L	ũ	<b>~</b> X	Ad		V	Pe



			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
7.1	Ref docs – 1,2,4,9,10,12 & 16	Training package and documentation is well defined, monitored and accessible.	В	2	М	S	4	A	1
7.2	Ref doc – 3,9,20,21,22,23,& 24	Control system automatically generates billing system to SAP, every 0.5hr. Mature system in place to control and verify changes to control system.	С	1	L	S	5	A	1
7.3	Interview with Plant Manager	Site access to SAP via request to IT Group. Password routinely rotated every 60 days and limited to staff on site. Control system password does not change	С	1	L	S	5	A	1
7.4	Site access & security interview with Plant Manager	Whole of site secured by electric fencing, CCTV cameras on perimeter and access through swipe card controlled gates. Register of issued swipe cards is maintained in site. All buildings locked after hours. Site access restricted.	В	2	М	S	5	A	1
7.5	Ref doc – 25, Back up procedures were discussed by interview with Plant Manager	Control system back up daily via installed system. Site server backup daily and monthly by staff and sent to	С	1	L	М	4	A	2



		IT (Brisbane) to hold for 7							
		years.							
7.6	Ref doc – 1,2,3,5,6,7,8,16,	Calibration of equipment and	С	1	L	S	5	А	1
	19 & 24 and interview with	meters are well planned and							
	Plant Manager	documented							
7.7	Ref doc –	Monthly reports and quarterly	С	1	L	S	5	А	1
	1,2,3,5,6,7,8,11,14,15,16,17,	environment reports provide							
	18 & 19.	adequate information to							
		monitor licence obligations							

**Comments & Recommendations** 

Recommendation 1 - To develop procedural documentation to detail the process in relation to daily and monthly back up of server. Recommendation 2 - To test the backup tapes for effective retrieval of data.

Comment – Audit priority 7.4 was reclassified, review of documentation and processes reduced the inherent risk for these criteria.



8	Key Process - Risk ManagementRisk management involves the identification of risks and their management within an acceptable level of risk.OutcomeAn effective risk management framework is applied to manage risks related to the maintenance of service standards	Asset management process and policy definition adequacy rating A	Asset management performance rating 1
Wa	erviewees: yne Roberts – Plant Manager, Kemerton Power Station, nsfield Services	<ul> <li>2008/09 Asset Manageme</li> <li>2. Power Generation Service 2009/10 Asset Manageme</li> <li>3. O&amp;M Alliance Agreeme</li> <li>4. Transfield Services, Ass Performance (OSP) (on- (October 2006,rev 10)</li> <li>5. Kemerton Power Station 2009</li> <li>6. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2009/10</li> </ul>	ces: Kemerton Power Station ent Plan nt essing Operational Systems line system), TMD-0000-QA-0007 n Monthly report – February Monthly report – July 2009 a Quarterly Report – 3 <sup>rd</sup> Quarter a Quarterly Report – 2 <sup>nd</sup> Quarter esssment Work sheet TMF-0000- 0003) ed via transapp 023-LD-0001 ng system



			<ul> <li>Services Alliance Management Team (AMT) meeting Minutes Mar 2010</li> <li>15. Leadership Commitment Program Report Jan to Dec 2009</li> <li>16. Transfield Services: SKM Technical and Environmental Due Diligence Kemerton Power Station</li> <li>17. Operational Services Audit November 2009</li> <li>18. Management/Toolbox meeting Minutes 260210</li> <li>19. Risk Policy TMC-0000-RM-1001</li> <li>20. Job Start / hazard identification TMF-8009-SA-0002</li> <li>21. Permit To Work System KMP-6023-OPS-0000</li> <li>22. Transfield Services Betterways Continuous Improvemen program</li> <li>23. PGS HSEQR Strategic Plan 2009/10</li> <li>24. PGS: Health Safety Environment Quality Risk Plan 2008/09</li> <li>25. Agenda PGS HSE Steering Group meeting 050310</li> <li>26. PGS HSE Steering Group Meeting 050319 Actions</li> <li>27. Site Hazard Register TMD-6023-SA-0001</li> </ul>					)ec nental )2 /ement n	
	Criteria Effec	ctiveness				iew Audit Prie			
	Policy	Performance	A=likely B=probable	Coused neuco Coused neuco 1=minor 2=moderate	Mimber Manuel Misk rating	Adequacy of existing existing P=moderate	Review	Adequacy Rating	<b>Performance</b> Rating
8.1	Ref docs – 1,2,3,4,9,10,11,12, 13,15,16,19,20,21,23 & 24	Risk management forms an integral step in Transfield Services management strategies, policies and procedures are well	C=unlikely C	3=major 1	H=high L	W=weak S	5	A	1



		documented within the OSP system.							
8.2	Ref docs - 1,2,3,4,5,6,7,8,9,10,11,12, 13,15,16,19,20,21,22, 23,24,25,26 & 27	Risks are documented by Transfield Services in its annual Policy document and in registers and risk plans ( all included in its Risk Portal). These are monitored monthly, implemented by due dates and audited annually.	С	1	L	S	5	A	1
8.3	Ref docs – 1,2,5,6,7,8,14,15,17, 18,22,23,24,25, 26 & 27	Transfield Services review the risks annually. Risks are evaluated and risk management system is well established where probability and consequences are assessed.	С	1	L	S	5	A	1

**Comments & Recommendations** Nil



Wa	<ul> <li>9 Key Process - Contingency Planning         <ul> <li>Contingency plans document the steps to deal with the             unexpected failure of an asset.</li> <li>Outcome-                  Contingency plans have been developed and tested to                  minimise any significant disruptions to service standards.</li> </ul> </li> <li>Interviewees:         <ul> <li>Wayne Roberts – Plant Manager, Kemerton Power Station,             Transfield Services</li> </ul> </li> <li>Criteria Effectiveness</li> </ul>			A definition a rating A document uel Gas Del uel Oil Sup onnection A	dequacy ation: livery Agre	eement (GI nent (Calto	rat DA) with ex Austr		
				& M Allia	nce Agreei	nent			
L				ater Supp				/ater)	
	Criteria Effec			0		ew Audit Pric	ority		0
	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			
9.1	Ref doc – 1,2,3,4 & 5 Interview with Plant Manager	In addition to fuel supply agreement Transfield Services has also put in place fuel arrangements with BP and Shell. Verve supplies the gas. Fuel supply agreement has been well tested and proven. Transfield Services has also ensured complete Strategic Spares inventory listing on site and is easily	В	1	L	S	5	A	1



accessible.				
Membership of the two V94.5				
user Group forms part of the				
contingency plan for asset				
failures.				

Comments & Recommendations	
Nil	



10 <b>Key Process - Financial Planning</b> 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.	Asset management process and policy definition adequacy rating	Asset management performance rating
Outcome A financial plan that is reliable and provides for long-term financial viability of services	Α	2
Interviewees: Wayne Roberts – Plant Manager, Kemerton Power Station, Transfield Services Geoff Dutton – General Manager Assets, Transfield Services Infrastructure Fund (Phone and emails)	<ul> <li>2008/09 Asset Manageme</li> <li>2. Power Generation Service 2009/10 Asset Manageme</li> <li>3. O&amp;M Alliance Agreeme</li> <li>4. Transfield Services, Ass Performance (on-line sys (October 2006,rev 10)</li> <li>5. Kemerton Power Station 2009</li> <li>6. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2008/09</li> <li>8. Kemerton Power Station 2009/10</li> <li>9. BW TSIL Group Finance</li> <li>10. KMP 8042 2010 Budget</li> <li>11. 2009 09 Mar KMP Result</li> <li>12. Risk Portal intranet base</li> <li>13. In Sight incident reporting</li> <li>14. Transfield Services Infra</li> </ul>	ces: Kemerton Power Station ent Plan nt essing Operational Systems stem), TMD-0000-QA-0007 n Monthly report – February Monthly report – July 2009 a Quarterly Report – 3 <sup>rd</sup> Quarter a Quarterly Report – 2 <sup>nd</sup> Quarter ials Pack 2009 V2 Its FCST ed via transapp ng system



			<ul> <li>15. Leadership Commitment Program Report Jan to Dec 2009</li> <li>16. Budget Change Management Form: TMF-8009-AD-000</li> <li>17. Project Leader: Kemerton Power Station 25.5 year – Forecast Model</li> <li>18. Transfield Services Infrastructure Limited (TSIL) Annu Report 2009</li> <li>19. Transfield Services: SKM Technical and Environmenta Due Diligence Kemerton Power Station</li> <li>20. SRC : Strategic Review Committee Process</li> </ul>					D-0003 : – Annual	
	Criteria Effec	ctiveness			Post Rev	view Audit Pric	ority		
	Policy	Performance	Tikelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	<b>Performance</b> Rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=IOW M=medium H=high	S=strong M=moderate W=weak			
10.1	Ref docs – 1,2,3,4,5,6,7,8,14,15,17 & 18	The financial planning process provides a reliable basis for Kemerton Power Station to plan, budget and report on its operational and maintenance costs and capital expenditure. Financial planning occurs during the April - June period of each year for the following financial year, it includes both recurrent and capital expenditure planning.	C	1	L	S	5	A	1



10.2	Ref docs – 1,2,3,9,10,11,14,15,18 & 20	Funding sources are documented within the plan, there is only one source of funds for both capital expenditure and recurrent costs, that is the Transfield Infrastructure Fund	С	1	L	S	5	A	1
10.3	Ref docs – 1,2,3,4,5,6,7,8,9,10,11, 14, 15, 17 & 18 Interview with Plant Manager.	The financial reporting system provides regular projections of operating position and financial projections.	С	1	L	S	5	A	1
10.4	Ref docs – 1,2,3,9,10,11,17 & 18	No 5 year financial plan was presented however the financial plan provides firm predictions for income for the next 2-years of the plan. TSIF have commented that they Kemerton O & M budgets will be the same for foreseeable future, apart from CPI adjustments. This is based on the repetitive and predictable nature of Kemerton's contracts operations and energy	В	2	М	М	4	A	3
10.5	Ref docs – 1,2,3,7,8,9,10,11,14,17 & 18	The plan provides for the operations and maintenance, administration and capital expenditure for the services.	С	1	L	S	5	A	1
10.6	Ref docs –	Variances from actual and	С	1	L	S	5	А	1



5,6,7,8,9,10,11,12 & 14	budget income and expense are reported and monitored monthly/quarterly by Transfield Services, significant variances,		
	corrective actions and improvement initiatives are reported in the		
	monthly/quarterly report and to the Alliance Board		

**Comments & Recommendations** Recommendation 3- Extend current 2 year plan to 5 years to meet the requirements of criteria 10.4



<ul> <li>11 Key Process - Capital Expenditure Planning         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 -         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.     </li> </ul>	Asset management process and policy definition adequacy rating A	Asset management performance rating 1
Interviewees: Wayne Roberts – Plant Manager, Kemerton Power Station, Transfield Services Geoff Dutton – General Manager Assets, Transfield Services Infrastructure Fund (Phone and emails)	<ul> <li>2008/09 Asset Manageme</li> <li>2. Power Generation Service</li> <li>2009/10 Asset Manageme</li> <li>3. O&amp;M Alliance Agreeme</li> <li>4. Kemerton Power Station</li> <li>2008/09</li> <li>5. Kemerton Power Station</li> <li>2009/10</li> <li>6. BW TSIL Group Finance</li> <li>7. KMP 8042 2010 Budget</li> <li>8. 2009 09 Mar KMP Result</li> <li>9. Transfield Services Infra</li> </ul>	ces: Kemerton Power Station ent Plan nt n Quarterly Report – 3 <sup>rd</sup> Quarter n Quarterly Report – 2 <sup>nd</sup> Quarter tials Pack 2009 V2



			<ul> <li>10. Project Leader: Kemerton Power Station 25.5 year – Forecast Model</li> <li>11. Transfield Services: SKM Technical and Environmental Due Diligence Kemerton Power Station</li> <li>12. SRC : Strategic Review Committee Process</li> <li>13. Kemerton Only – Major Maintenance Costs and Cash Flows V4</li> </ul>						nental
	Criteria Effec	Tikelihood	Consequence Consequence	Post Rev Inherent Risk rating	iew Audit Prio	Review priority	Adequacy Rating	<b>Performance</b> Rating	
111	D.C.I		B=probable C=unlikely	2=moderate 3=major	M=medium H=high	M=moderate W=weak			1
11.1	Ref docs – 1,2,3,4,5,6,7,8,9,11,12 & 13	The capital expenditure is well documented in relation to the major planned/outage works that has been scheduled, both in the AMP and the capital expenditure plan.	С	1	L	S	5	A	1
11.2	Ref docs – 1,2,3,4,5,6,7,8,9,10,11,12 & 13	Reasons for capital expenditure are well documented in the AMP . SRC process is effective in justifying capital expenditure which then forms part of the 5 year capital expenditure forecasts.	С	1	L	S	5	A	1
11.3	Ref docs –	Financial planning occurs	С	1	L	S	5	А	1



	1,2,3,6,7.8.9,10,11,12 & 13	during the April - June period of each year for the following financial year, it includes both recurrent and capital expenditure planning. Future capital expenditure for the station will be based on Asset Criticality Analysis which is reflected in the AMP.							
11.4	Ref docs – 1,2,3,4,5,6,7,8,9,11,12 & 13	As above. In additional, Transfield Services 'Betterways' program can provide input into the capital expenditure plan through continuous improvement initiatives.	С	1	L	S	5	A	1

**Comments & Recommendations** 



12	Key Process - Review of AN The asset management system updated Outcome Review of the Asset Managem effectiveness of the integration currency.	e is regularly reviewed and ent System to ensure the		anagement p definition a rating A		Asset	-	nent perfo ting 1	rmance
Inte	erviewees:		Relevan	t document	ation:	1			
			2 2. P 2 3. C 4. D 5. H 6. D 7. H 8. P 7. H 8. P 7. D	ower Gener 008/09 Asse ower Gener 009/10 Asse 0&M Allian 0atabase Lic angerous C 0angerous C 0angerous C 0angerous C 1ectrical eq nd Report I 1erformance ransfield S 0angerous g 0angerous C	ration Serv et Manager ration Serv et Manager ace Agreem cence and I All Risks S Goods Revi Goods Stors uipment in May 2008 e Audit and ervices KP goods Revie	nent Plan vices: Kem nent Plan kent Regulatory Survey Rej ew for Tra age at KPS hazardou hazardou l Asset ma S July 200 ew for Tra	erton Po erton Po v Requir port Aug unsfield S April 2 is Areas inagements 8 nsfield S	ower Stati rements gust 2008 Services: 2008 (EEHA) S nt Review	ion Survey
	Criteria Effec		perational		0		•		
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy rating	Performance Rating

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			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
12.1	Ref doc – 1,2,3	The Asset Management Plan, as per the O&M Alliance Agreement has to be updated by June every year.	С	2	M	S	4	A	1
12.2	Ref doc – 1,2,3,4,5,6,7,8,9 & 10 and interview with Plant Manager	Internal audits conducted by non Kemerton Power Station Transfield staff in relation to the licences, financial and asset management aspects of the plan. AMP is reviewed annually and approved by the Alliance Board.	С	2	М	S	4	A	1

Comments & Recommendations	
Nil	



## Table 3.0 Effectiveness Criteria Pre- Audit Review

1	Key Process - Asset Planning		Outcome						
	Asset planning strategies are focus	sed on meeting customer needs in							
	the most effective and efficient man	nner (delivering the right service							
	at the right price).		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 B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate 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	С	1	L	S	5		
1.2	Service levels are defined	Some service levels not defined	С	1	L	S	5		
1.3	Non-asset options (e.g. demand management) are considered	Agreements in place with Synergy, Newmont & Water Corp for consumption of resource, demand management	С	1	L	S	5		
1.4	Lifecycle costs of owning and operating assets are assessed	Lifecycle costs larger than expected	С	2	М	М	4		
1.5	Funding options are evaluated	Alternate funding cost less	В	2	М	S	4		
1.6	Costs are justified and cost drivers identified	Costs are larger than expected	В	2	М	S	4		
1.7	Likelihood and consequences of asset failure are predicted	Asset fail more often with severer consequences than expected	В	1	L	М	4		
1.8	Plans are regularly reviewed and updated	Plans do not reflect best practices	В	2	М	S	4		



2	<b>Key Process - Asset creation/acquisition</b> 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 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 B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
2.1	Full project evaluations are undertaken for new assets, including comparative assessment of non- asset solutions	Higher costs than necessary	С	1	L	S	5		
2.2	Evaluations include all life-cycle costs	Higher costs than expected	С	1	L	S	5		
2.3	Projects reflect sound engineering and business decisions	Projects cost more, do not meet their objectives or are unsafe to operate	В	1	L	S	5		
2.4	Commissioning tests are documented and completed	Valuable information lost and asset does not operate correctly or safely	С	1	L	S	5		
2.5	Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	Assets and practices do not meet current legislative requirements	C	2	М	S	4		



3	<b>Key process - Asset disposal</b> <i>Effective asset disposal frameworks incorporate consideration of</i> <i>alternatives for the disposal of surplus, obsolete, under-performing</i> <i>or unserviceable assets. Alternatives are evaluated in cost-benefit</i> <i>terms</i>			<b>Outcome</b> 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 B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate 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	С	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	С	1	L	S	5		
3.3	Disposal alternatives are evaluated	Disposal alternatives are evaluated	С	1	Ĺ	S	5		
3.4	There is a replacement strategy for assets	There is a replacement strategy for assets	С	1	L	S	5		



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



5	<b>Key Process - Asset operations</b> <i>Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.</i>			Outcome 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)	<i>that servic</i> Likelihood	<i>e levels can</i> Consequence	<i>be consist</i> Inherent Risk rating	Adequacy of existing controls	<i>ed.</i> Review priority		
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
5.1	Operational policies and procedures are documented and linked to service levels required	Service levels not consistently achieved	C	1	L	S	5		
5.2	Risk management is applied to prioritise operations tasks	Unimportant tasks performed before important tasks	С	1	L	S	5		
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	С	1	L	S	5		
5.4	Operational costs are measured and monitored	Operational costs too high	С	1	L	S	5		
5.5	Staff receive training commensurate with their responsibilities	Staff perform tasks for which they are not trained	С	1	L	S	5		



6	<b>Key process - Asset maintenance</b> Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.			Outcome 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 B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
6.1	Maintenance policies and procedures are documented and linked to service levels required	Service levels not consistently achieved	В	2	М	S	4		
6.2	Regular inspections are undertaken of asset performance and condition	Asset performance and condition unknown	В	2	М	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	В	2	М	S	4		
6.4	Failures are analysed and operational/maintenance plans adjusted where necessary	Failures are repeated	В	1	L	S	5		
6.5	Risk management is applied to prioritise maintenance tasks	Unimportant tasks performed before important tasks	В	1	L	S	5		
6.6	Maintenance costs are measured and monitored	Maintenance costs too high	С	1	L	S	5		



7	<b>Key process - Asset Management Information System (MIS)</b> An asset management information system is a combination of processes, data and software that support the asset management functions.			Outcome - 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 B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak				
7.1	Adequate system documentation for users and IT operators	Service levels not consistently achieved	В	2	М	М	4			
7.2	Input controls include appropriate verification and validation of data entered into the system	Incorrect data entered into system	С	1	L	S	5			
7.3	Logical security access controls appear adequate, such as passwords	Unauthorised access to system	С	1	L	S	5			
7.4	Physical security access controls appear adequate	Unauthorised access to equipment	В	2	М	М	4			
7.5	Data backup procedures appear adequate	Complete loss of data or very old data available after systems failure	С	1	L	М	5			
7.6	Key computations related to licensee performance reporting are materially accurate	Service levels not consistently achieved	С	1	L	М	5			
7.7	Management reports appear adequate for the licensee to monitor licence obligations	Service levels not consistently achieved	С	1	L	Μ	5			



8	<b>Key Process - Risk Management</b> <i>Risk management involves the iden</i> <i>management within an acceptable</i>	OutcomeAn effective risk management framework is appliedto manage risks related to the maintenance of servicestandards						
	Effectiveness Criteria	Inherent Risks ( No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate 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	С	1	L	Μ	5	
8.2	Risks are documented in a risk register and treatment plans are actioned and monitored	Failure to capture risks within risk register processes	С	1	L	М	5	
8.3	The probability and consequences of asset failure are regularly assessed	Inadequate review of asset failures	С	1	L	М	5	



9	<b>Key Process - Contingency Plann</b> Contingency plans document the sta failure of an asset.	Outcome- Contingency plans have been developed and tested to minimise any significant disruptions to service standards.					
	Effectiveness Criteria	Inherent Risks ( No Controls)	Likelihood A=likely B=probable C=unlikely	Consequence 1=minor 2=moderate 3=major	Inherent Risk rating L=low M=medium H=high	Adequacy of existing controls S=strong M=moderate W=weak	Review priority
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	1	L	S	5



10	<b>Key Process - Financial Planning</b> 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.		<b>Outcome</b> 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 B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate 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	S	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	С	1	L	S	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	S	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	С	1	L	S	5	
10.5	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Inadequate financial plan	A	1	L	S	5	
10.6	Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	Corrective action not taken when significant variances in actual/budget income and expenses occurred	A	1	L	S	5	
11	<b>Key Process - Capital Expenditure Planning</b> The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated		<b>Outcome -</b> A capital expenditure plan that provides reliable forward estimates of capital expenditure and asset					



	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.		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 B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate 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	С	1	L	S	5	
11.2	The plan provide reasons for capital expenditure and timing of expenditure	Inadequate Capital Expenditure plan	C	1	L	S	5	
11.3	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Inadequate Capital Expenditure plan	С	1	L	S	5	
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	С	1	L	S	5	



12	Key Process - Review of AMSThe asset management system is regularly reviewed and updated		Outcome 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 B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate 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	С	2	Μ	S	4	
12.2	Independent reviews (e.g. internal audit) are performed of the asset management system	Inadequate review processes for AMS	C	2	М	S	4	