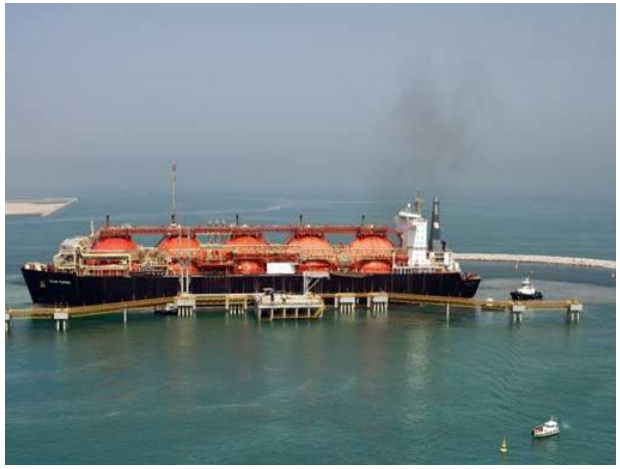
هيئة دبي للتجهيزات
Dubai Supply Authority

Operating Excellence System



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Introduction to DUSUP OES

DUSUP Mission Statement

DUSUP performs a key role in Dubai's energy program by sourcing and distributing the natural gas and LNG that fuels the generation of power and production of water. We add significant value to Dubai by providing safe uninterrupted receipt, storage, production and transmission of natural gas and LNG through reliable infrastructure, effective operations and strategic planning.

DUSUP Operating Excellence System (OES)

In order to ensure our ability to deliver the DUSUP Mission Statement, we work according to principles, standards and procedures described in our OES. Contractors and suppliers doing business with DUSUP must comply with the OES elements that apply to their work.

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What is OES ?

The Operating Excellence System (OES) is the framework used to provide a *consistently* high standard of operations. The OES allows the business to be *professional, organised* and *efficient* by providing the appropriate structure and systems through which DUSUP can operate.

Operating Excellence gives us pride in our operation, ensures its long term integrity, safety and consistent delivery of the energy that Dubai needs.

OES provides

- a mechanism for self-assessment and sets a direction for continuous improvement.
- a practical tool through which management can assess its performance, both short and long term, in the achievement of Operating Excellence.
- a method for increasing management involvement in preventing incidents, improving compliance, increasing productivity and efficiency.
- a mechanism to evaluate and address the risks associated with the business.

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Key Features and Element Coordinators

OES consists of eleven elements with one or more expectations associated with each element. Each element is coordinated by a DUSUP Manager.

OES

- Establishes clear expectations.
- Encompasses the broad concept of operational excellence.
- Creates an organised approach to daily work.
- Allows for growth and risk taking through a systematic process.
- Promotes continuous improvement.
- Establishes a self-assessment mechanism.

Each OES Element has a Responsible person that will monitor the implementation of the element across the organisation for consistency and effectiveness.

Additionally, site OES Sub-Teams across DUSUP are responsible for implementing OES at their respective sites.

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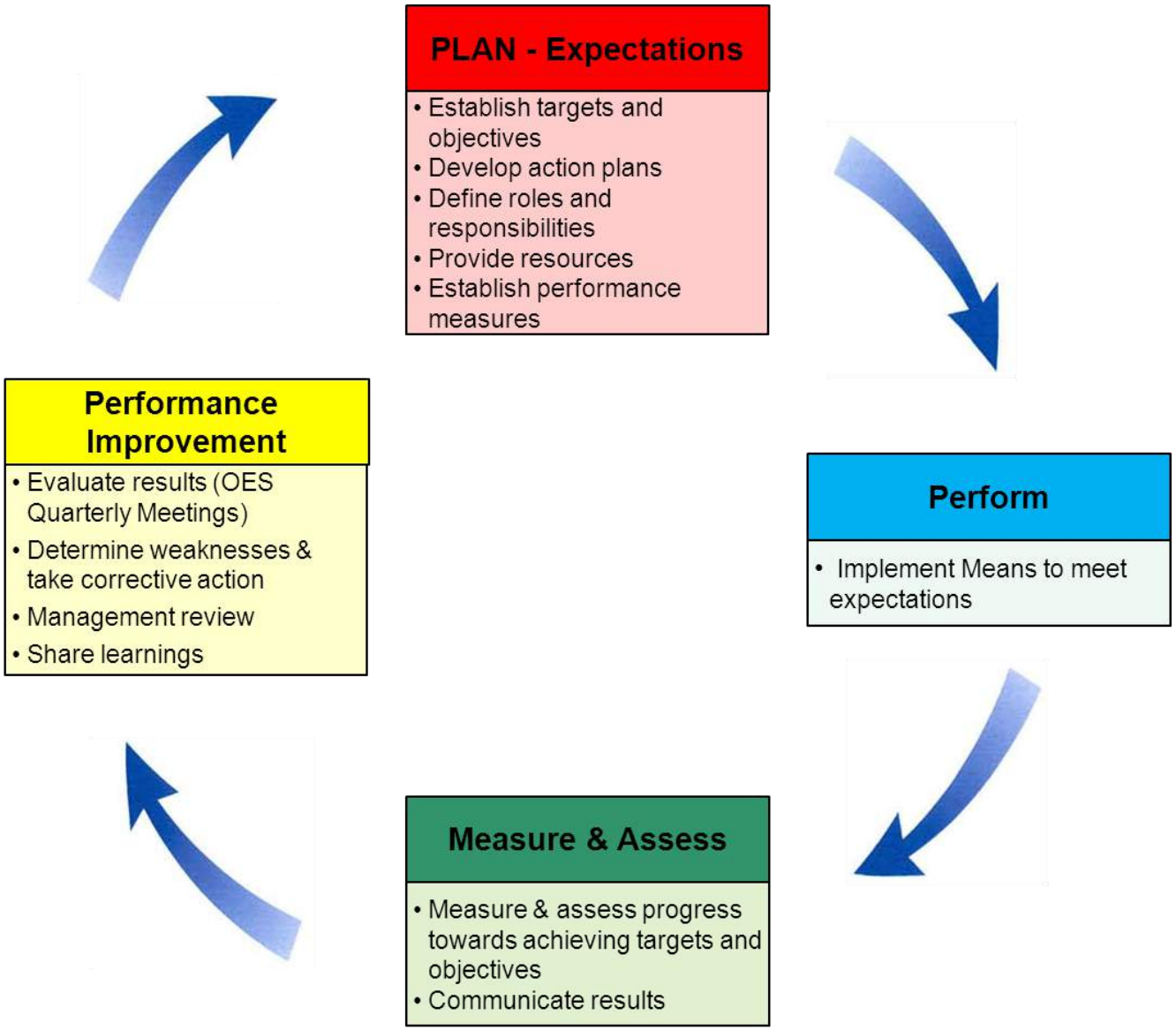
OES Plan-Perform-Measure-Improve Cycle



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DUSUP OES Scorecard - Q2 / 2015 17-Jun-15

	Element	Coordinator	Score	Element Reviews 2013	2014	2015
1	Leadership, Commitment and Involvement	Amos Smith	3.77	Q2	Q2	
2	Risk Management	Ryan Rogers	3.58	Q1	Q2	
3	Human Resources and Training	Sarah Meredith	3.83	Q3	Q2	
4	Design & Construction	Vikram Wadhwa	3.83		Q1	
5	Operations & Maintenance	IS, HA, DJ, PA, MF	3.88		Q1	Review Process Safety related items and items ≤ 3
6	Management of Change	Vikram Wadhwa	4.25	Q1	Q4	
7	Third Party Services	Aisah Othman	3.72	Q3	Q3	
8	Incident Management	Ryan Rogers	3.75	Q2	Q1	
9	Emergency Preparedness	Ryan Rogers	3.90	Q3	Q4	
10	Information and Documentation	Vikram Wadhwa	3.62	Q3	Q3	
11	OES Status Review & System Assessment	Amos Smith	4.34	Q1	Q3	
			3.86			

Score History		Improvement Qtr.	Improvement Year
2010	**2.40**		
2011	**3.40**		**41.7%**
2012	**3.66**		**7.6%**
2013	**3.75**		**2.5%**
2014	**3.85**		**2.7%**
2015/Q1	**3.86**		**0.3%**

To see Q2 updates for each of the OES elements please click here

2015 Goal: ≤ 3 Items - 1.4,1.7, 2.1, 2.6, 3.2, 4.6, 5.7, 5.11, 7.3, 7.5, 9.3, 10.2, 10.3
Process Safety Elements - 1.8, 2.6, 4.8, 4.9, 5.3
React to external audit. PM/AS consider further.

Score System	
Poor	**0 - 1**
Good	**2 - 3**
Best	**4 - 5**

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DUSUP OES Element Review 17-Jun-15

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Element 1: Leadership, Commitment and Involvement

Management provides the vision, sets the expectations & provides the resources to implement OES. Management is actively involved in OES by modeling positive behaviour, engaging in OES conversations with employees & contractors; and requiring that OES & HSE expectations are integrated into the business planning and decision making processes.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
1.1	A system is in place to implement OES and establish the scope, objectives, priority and pace for implementation.	OES Guidance Document & Scorecard.	The system is in place and fully implemented. Guidance Document upgraded Q4/2013. OES brochure switched to electronic and placed on internet and intranet Q4/2013. Q2/2015 Compared Element 1 to same ExxonMobil element - no changes recommended.	4.7	RR - update HSE Manual (M list)
1.2	Management participates actively, visibly and credibly to ensure that OES is supported and maintained throughout the organization.	OES Management Team is responsible for content and implementation of each element.	Subteam leaders are taking responsibility for their elements. OES quiz held. OES audit reviewed in Town Hall Meeting Q2/2013.	4	Subteam leads check their section of Guidance Document and self assess where we are & identify gaps in order to define improvement goals
1.3	Management establishes DUSUP objectives and targets for the performance and integrity of the operations.	Annual Plan development led by Manager, DUSUP. Annual performance review process cascades to all levels in the organization.	DUSUP Plan and KPI's are set annually, reviewed at Town Hall Meetings and the presentations are kept on intranet. Q3/2014: DUSUP Audit SOP / Program established with Mgr as Team Lead Q1/2015 Reviewed all 3 ratings and PS	4	Review internal / external audit results (this doesn't seem to fit here?)
1.4	Management fosters a "Just Culture" working environment, which supports and encourages open dialogue about incidents, concerns, and non-compliance occurrences.	Management and employee awareness through continuous practice - leading to eventual imbedding in our Culture.	2006: STOP program is forum for non-punitive dialog in recognition that most unsafe acts are not intentional. Q1/2013: Held rollout of Just Culture / Life Saving Rules and developed SOP-D-059 Q3/2013: Just Culture Quiz conducted Q4/2013: Management Safety Walks began, providing open dialog for concerns 2014: JC included in new employee HSE induction 2015: Strenghened JC new employee induction and moved from HSE to Management induction	3	Discuss during rollout of new incident reporting system. Transfer JC from LSR SOP to HR Discipline Policy 4.02 for broader coverage and use. Consider JC implementation groups in each department (role TBD) Discuss examples in various staff meetings to increase awareness.
1.5	Employees (as appropriate) are actively involved in the development, implementation and functioning of the OES.	SOP, Procedures and Specification developments & updates.	OES Overview developed and rolled out (and updated & rolled out again in 2014,as well as being made part of new employee induction). Included in Competency Programs. SOP updates go to all staff. Aug 2014: OES Awareness Presentation developed - at Mar 2015 144 employees have attended. 2015: OES Awareness added to new employee induction program	4	
1.6	All employees are responsible and accountable for the integrity and safety of operations as it pertains to themselves and their work environment.	SOP, Operating Manuals, HSE Manual, PM Procedures, Annual Performance Reviews	Means items in place and continuously improved. Guidance for non operations staff developed and placed in OES Guidance Document.	4	
1.7	Management requires energy conservation practices and actively participates in the program.	DUSUP Energy Conservation Program.	Energy saving report is developed and presented to SCE on a quarterly basis. Subject included in project and MOC SOPs. Dec 2014: Envinta energy conservation audit completed.	3	Develop EIA and Energy Management System
1.8	Management is committed to establishing and maintaining high process safety standards.	DUSUP Process Safety Indicator (PSI) Program.	PSI KPI's set for Work Permit accuracy and Loss of Containment SOP competence. Safety Critical PM compliance monitored and published. Q3/2014 RBI program developed and being implemented. PSSR. Dec 2014: KPI set for Safety Critical Competency & Training	3.5	Set KPIs for Bow Tie compliance by Q4 2015 Develop PHA Program
			Score	3.8	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

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DUSUP OES Element Review 17-Jun-15

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Element 2: Risk Management

Management of risk is a continuous process and is the cornerstone of DUSUP operations. Hazards will be identified and the risks associated with DUSUP's activities regularly assessed. Comprehensive risk management reduces operating risk and the potential for safety, health, and environmental incidents and liabilities.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
2.1	A system is in place to identify potential hazards and liabilities to personnel, facilities, the public and the environment to assess risk, to evaluate prevention and mitigation measures, and to ensure that control techniques are implemented for the ongoing management of risk for all DUSUP activities.	Project Process SOP-D-046 Project Approval process	a) Risk Assessments, HAZOP, PM procedures, job scopes, SOP's, PSI, Facility Change, Pipeline Integrity Management in place. b) SIL assessment of Plant completed Feb 2012. c) LOC - Gas bowtie conducted. d) Projects Process SOP-D-046 Developed. e) Fireproofing study completed. f) RBI study completed. g) DUSUP enterprise RAM established h) Q3/2014 - SOP-D-037 updated / training done	3.0	DUSUP HSE Capability Accreditation consider in 2015 Hazard & Risk Register to be finalised 25% complete - target end July 35% complete - target end Dec
2.2	A system is in place that provides a comprehensive approach to manage personnel exposures in the workplace and provides for communication of these exposures to affected employees and contractors.	SOP's are in place and reviewed per OES schedule; regular safety meetings are held together with Toolbox talks before specific tasks. Incidents are investigated and relevant findings communicated.	Industrial Hygiene SOP's are on DUSUP intranet. COSHH rolled out at safety meetings. Competency programs contain HSE section.	4.0	Consideration of Integrated Safe System of Work (ISSOW) to deliver an automated, streamlined Work Flow process for 2015 that defines routing according to the work planned. SOW to be developed - 2015 budgeted project. COSHH programme to be established. Expansion of IHG (industrial Health Guidelines) Review and update guidance document if necessary – LH, revised process and SOP D-013 (is guidance document IHG update?) Policy revisions to be proposed along with SOP update.
2.3	Risk mitigation techniques are considered according to the hierarchy as documented in SOP-D-037 Risk Assessment: Eliminate, Reduce, Substitute, Physical Controls, Administrative Controls and Protection/Rescue.	Risk Assessment SOP directs the mitigation techniques in the appropriate hierarchy	The hierarchy of control is defined in the procedures to ensure that there is consistency across the organisation regarding implementation. Q3/2014: PHA, Bow Tie, QRA, FEMA, etc. included in SOP-D-037. Risktek conducted audit / review.	4.0	
2.4	Risks addressed by appropriate level of management according to the magnitude of the risk and decisions are clearly documented.	Risk assessment SOP dictates who should attend the Risk assessment meeting and Risk assessments are documented and placed on Intranet	Small & flat organization helps communication. Risk Assessment SOP. MOC's. PSI.	3.5	Link to company wide risk framework, including business risks. Formalize a process. To be included as part of the work control review.
2.5	Risk assessments are considered unique but may be reviewed for applicability as per Risk Assessment SOP-D-037.	Risk assessment SOP is in place to ensure Risk assessments are developed / reviewed as required.	Facility change analysis conducted when plant is added or changed in accordance with element 6. MOC SOP's from Margham and PL/GCS merged Mar 2012. SOP-D-037 significantly upgraded.	4.0	
2.6	Process Safety is managed to reduce the frequency and severity of incidents resulting from hydrocarbon releases.	a) PSI - Work Permit Audits b) PSI - Staff competency in LOC SOPs c) Review of major incidents in the industry d) Loss of Containment Bow Ties e) Asset Integrity Program f) Linkage to other elements such as 1.8 Leadership and 4.9 Design & Construction	a) Operations KPI set for Work Permit Audits and staff competency in LOC SOPs in 2012 and elevated to DUSUP KPI status in 2014. b) Longford incident reviewed in 2014 and applicable items to DUSUP tracked; set OES goal to review one major industry incident per year. c) Asset Integrity steering committee set up in 2015 d) 5 bowties completed out of which 2 are published	3.0	Complete loss of containment (gas) Bow Ties in 2014. Initiate Asset Integrity Steering Committee in 2014. Consider developing PHA Programme SOW to be developed and team to be formed and trained - 2015 budgeted item Safety Critical Equipment - Set performance standards and include in preventive maintenance schedule 2015 - Review Buncefield incident
			Score	**3.6**	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

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DUSUP OES Element Review 17-Jun-15

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Element 3: Human Resources & Training
Careful selection, placement, training, development and assessment of employee performance, capability and competence is necessary to achieving OES goals. Safe, healthy and environmentally sound behaviours are encouraged.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
3.1	Employee selection process ensures that personnel are qualified, competent, physically fit and possess the necessary job skills and knowledge for the position.	Medical evaluation, phychometric assessment & ability tests, competency based interview, appropriate tests conducted, attested certificates/qualifications.	Process is in place and working effectively. Doing formal assessments in hiring process. Managers/supervisors attended interview skills course. 2015 - Succession Planning overview published ***2014: External factors are affecting ability to recruiting quality staff.***	4	SM/SV - ERP System (2014 review and 2015 implementation)
3.2	An employee training system is in place to ensure competence, maintenance of necessary job skills and compliance with regulatory requirements. Training is evaluated to determine its effectiveness. Organizational and personnel changes of significant impact to the business are evaluated by MOC process (see also expectation 6.3).	Development plans part of Annual Performance Review (APR), quality check done annually. Competency framework in place for operations and maintenance to assess and address gaps. Common themes for development across the company identified and rolled out annually.	Training policy 3.18 updated. Created and published training calendar. APR process has improved by by providing regular feedback and running workshops. Completed apraisee training, development workshops and increased training spend in 2011. Agreement to use DPE courses in place. Person dedicated to training and development. Appendix 1 to all SOPs is now a training plan. Training system installed. API Pilot Series implemented. Competency Program includes testing. Training matrix tied to JDs. Soft skill training assessment process developed. Training system implemented, including training matrix updates associated with MOCs.	3	Review regulatory or internal requirements to ensure they are covered in SOPs, Competency Programs, etc.w/o Intelex. SOP-D-004 9a. "…reviewed to ensure they remain in compliance with regulations and standards…" Competency program for all staff Develop an overview of the training system.
3.3	A system is in place to assess employee performance, identify areas for improvement and identify development plans	Annual Performance Review (APR) Process	APR process fully implemented for all employees. Quality checks being carried out. Ratings used for first time in 2010 review and linked to reward. DUSUP leadership competencies developed.	4	
3.4	A behavior based process is in place to identify unsafe acts and unsafe conditions. Employees and contractors participate actively. Records are kept to provide statistical analysis. DUSUP utilizes the DuPont Safety Training Observation Program (STOP) to achieve this element.	DuPont STOP Program. Reinforced in/by Town hall meetings, tool box talks, awards for STOP cards, regular departmental meetings, safety training.	STOP is utilized across the DUSUP. HSE objective included in every employees APR. Implemented quarterly MT reviews Q1/2011. DUSUP STOP award system implemented. Q3/2014: Guidance for all staff included in OES Awareness presentation.	4	
3.5	Employees have clearly defined roles, responsibilities and accountabilities and these are used to determine individual performance targets.	Job Descriptions (available on intranet)	100% of job descriptions updated in last 18 months, including review for quality and consistency. OES Goals include 3-year update schedule. 15 person poll indicated people are aware of OES and their role.	4	
3.6	Orientation programs exist for new employees, short term contractors and visitors.	Guidance document/checklist on employee induction sent to line manager prior to new joiners arrival. Company induction run twice per year.	Formal new employee orientation program in place and effective (attendees surveyed and orientation upgraded accordingly). Site inductions vary from personal inductions to videos. Program upgraded in Q1/2014.	4	Add update of induction presentations to each sub-team goals in Q1 and Q3 of each year.
			Score	3.8	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

DUSUP OES Element Review 17-Jun-15

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Element 4 - Design and Construction

New facilities and modifications to existing facilities will be designed, procured, constructed and commissioned to enable safe, secure, healthy and environmentally sound performance throughout their operational life, by using recognised standards, procedures and management systems.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
4.1	A system for managing Design and Construction exists.	Systems & procedures are followed to address technical integrity & HSE requirement. Compliance to Codes & Standards, DUSUP Specifications, Industry Standards, Procedures & Regulatory requirements being followed . Design considerations are developed based on scope of the project including: risk assessments, operability, maintainability, constructability and QA/QC requirements. Changes to the Facility are managed using Facility Change Procedure where applicable.	Compliance to Codes and Standards, Specifications, Procedures and Regulatory requirements being followed. Key milestones are identified in Project Schedules. Pipeline specifications updates complete. Schedule to update all Margham specs set out in OES goals. Sept 2012: Project Process SOP-D-046 developed, including list of Technical Authorities.	3.5	Audit that we are actually following processes in Q2.
4.2	Potential hazards are identified and HSE risks assessed using appropriate risk assessment tools.	Risk Assessments, Hazop, SIL, etc. as per Project requirements.	Risk Assessments, Hazop, SIL, etc. are carried out as per Project requirements. RA SOP updated in 2012. RAM with probability levels developed. Q3/2014: adressed audit findings. 2012 Plant SIL Study Complete GCS & LNG consdered adequate PL & Field - na	4	Develop PHA
4.3	Deviations from design standards are identified and managed.	Design Change Request	Design Change Request System is in place.	4	Audit implementation
4.4	Quality assurance and inspection systems are in place to ensure that facilities meet design and procurement specifications and that construction is in accordance with approved standards.	Quality Control, Quality Assurance and Inspection plans and implementation	QA/QC Procedure is developed and followed on Projects. SOP-D-026 developed for QA/QC in Procurement. Engineers or TPI witness testing of critical equipment. Dialog with inspection companies ongoing. Dialog / callout agreements ongoing with TPI companies. In house PMI implemented. Expanded role of Inspection Supervisor to AI and RBI.	4	Audit
4.5	A pre-startup review is performed and documented.	Have a Pre-startup & Startup procedure in place for all major modifications/Projects.	Pre-Startup and Startup processes is in place for all major modifications / Projects. Startup and commissioning procedures reviewed by operations & maintenance.	4	Audit
4.6	Design addresses the requirement pollution prevention, waste minimization, energy conservation, abandonment or de-commissioning of facility and any other environmental issues.	The EMS addresses the environmental requirements.	The Environmental Management System (EMS) addresses the requirements for abandonment or decommissioning of the facilities and pollution control. EMS updated Feb 2012. Q1/2014 developed 18 month environmental work plan.	3	RR - Develop an awareness improvement plan Planning HSE Quiz Q2/2015 Consider the impact of decommissioning / abandonment for Projects
4.7	Operability and Maintainability aspects are covered.	Design review by Operations & Maintenance personnel at the initial stages is carried out to cover the Operatability & Maintainability aspects	Design review is carried out by Operations and Maintenance personnel.	4	Audit
4.8	Consider suitable devices such as PSV, IPF, etc. to ensure process safety during design phase.	Addressed through Project Safeguarding Philosophy document.	Addressed in design. Project Safeguarding Memorandum developed. MCI project confirmed compliance (Apr 2013) as documented in HSE Design Basis 5119777-SA-DB-0001 and FEED Basis of Design MCI-GN-BOD-011.	4	Audit for consistency across projects
4.9	Process safety is ensured during the design phase of projects.	Design documents - Design Basis, PFD, P&ID, Operation & Safeguarding Philosophy, Arlarm & Trip Settings, Cause & Effect Diagrams, etc.	Appropriate Design Documents are created, reviewed and maintained for every new project. MCI project FEED confirmed compliance (Apr 2013). See documentation record in 4.8.	4	Audit for consistency across projects WR540054 issued to complete actions from 2012 SIL study - Dec 2014 complete except trains Area 70 SIL validation
			Score	3.8	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

DUSUP OES Element Review Note: OPS refers to Habib, Mike, John, Ingemar, Pedro, Daniel & Abdulla 17-Jun-15

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Element 5: Operations & Maintenance
Facilities will be operated within established design parameters and in accordance with relevant international standards and best practices. Comprehensive and up-to-date operating, inspection and maintenance procedures are available to ensure integrity. Full information on the facilities and materials handled is also provided.

.	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
5.1	A system is in place that provides procedures necessary to ensure facility and equipment integrity, reliability and availability; and provides for regular updating of these procedures.	Standard Operating Procedures (SOP) Preventive Maintenance Procedures (PM) Pipeline Integrity Management System Operational Manual	a) PM, SOP and PL Integrity Management systems in place and functioning well. b) SOP's included in Competency Programs. c) Safety Critical PM Deferral SOP-D-047 developed and implemented. d) Q4/2014: GCS Operating Manual finalized e) Q4/2014: Bow ties include SCE lists f) Q1/2015: OP Manuals: GCS completed; Margham: Ongoing. (Area 90: Under review)	4	Plant operating manuals in development for completion by end 2016.
5.2	Systems are in place to ensure the competency of staff.	Competency Programs On-the-job training in SOP's, etc. Technical training as required	a) Plant Operations, Maintenance, GCS, LNG,Pipeline Competency framworks in place. Competency frameworks in place b) Competency framwork now being integrated into a central database. c) Competancy framwork for local trainee/apprentice operator now being developed. d) NOC related SOP training in place by monthly SOP training sessions e) Procedures updated for IC operating modes f) 2014: API Pilot Series implemented g) 2014: Functional operator competency standards added to assess operating manuals and procedures - will be kept current h) Training system developed and in service i) Competency System linked to operating manuals	3.9	Competency framework being extended to all departments
5.3	Work Permit and NOC systems are in place that incorporate checks and authorizations consistent with operational risks.	Process Safety Indicator (PSI) process to audit Work Permits against a set KPI. Pipeline NOC System.	a) SOP's for Work Permits, NOC's and Corridor Monitoring are current b) Isolation Certificate system in place c) Safe Work Procedure SOP-D-049 complete. d) KPI set for Work Permit audits and audits being conducted	4	ISSOW planned in 2016
5.4	A system is in place to ensure SIF systems, critical shutdown systems, critical relief equipment and critical process control systems are tested and maintained, including the management of temporary disarming and deactivation.	a) USD and ESD Checks SOP-MP-204 b) PM system SOP-D-048 and SOP-D-049 c) SOP-D-047 to manage safety critical PM's d) SOP-MP-200 & SOP-PL-415 Overrides/ Bypasses	Check with MF / PA on what needs to be mentioned here	4	Check with MF / PA on what needs to be mentioned here
5.5	Pollution controls, where installed, are function tested and undergo PM in accordance with the requirements of the EMS.	Evaporation ponds are checked by Operations on a monthly basis. Fugitive emissions are checked prior to each plant shutdown and rectified during the shutdown.	Active. No further PM or testing considered necessary for tank bunds or pallets. Q4/2014: Envinta emission audit conducted Q1/2015 Margham EIA completed	4	
5.6	A system is in place for managing operations in compliance with regulatory and legal requirements.	EMS-903 Identification of Legal and Other Requirements. EMS-904 Evaluation of Compliance with Relevant Legislation and Regulations.	Local regulatory review included in EMS system and conducted each 6 months.	4	Current process for SOP updates is working fine
5.7	Key operating parameters are established and regularly monitored. The workforce understands their roles and responsibilities to maintain operations within these parameters.	Operating Manuals Operating Procedures Relevant SOP's Competency Programs Alarms & Trip Register Statement of Operating boundaries ORA	Competency programs for operations and maintenance implemented. Margham Alarm Management software installed and in service. Systematically working through "bad actor" alarms. 2014: Alarm Management software installed	3.5	PA - Consider removing pre-alarms (M) Q1/2015 PA - Margham Operating Manuals (M) in progress 1. Operating Manual: GCS: since 2014 / Margham: Draft created for area 90. Under revision by Process Engineer. Others: In progress. Plan to complete in 2016. 2. Operating Procedures GCS: since 2012 / Margham: Completed. Regular revision plan in place. 3. Relevant Procedures, GCS: yes available / Margham: Available 4. Competency Programs, GCS: yes in effect from 2012 / Margham: yes in effect from 2012. 5. Alarms & Trip Register, GCS: yes from 2010 and including Alarm Management. Margham: Alarm management Philosophy completed / Working with Bad actors / Rationalization of Alarms: Ongoing / Pre Alarms: Plan created. Creating List of alarms. Review by Gulson: Planned/ Removal of Pre Alarms: Planned by Honeywell. 6. Operating Parameters, GCS: yes Gas Nomination Process from most Customers and suppliers. Overall Dusup operating parameters achieved through demand forecasts and profiles (if it should be added) Margham: Yes. Revision plan for 2015. 7. Supply interruption procedure, covered in SOP-GCS-740 and SOP-D-028 8. For Alarm Management achieved EEMUA (Engineering Equipment & Material Users Association guideline level 7. System Alarms in DCS software upgrade due in June this year.
5.8	Pollution prevention & waste minimization are addressed in the operations. Disposal of waste material takes place only at approved sites.	ISO14000 Flare KPI	a) ISO14000 in place and audited annually b) Flare KPI in place, flare study complete c) Optimizing fuel utilization d) Hazardous materials disposal process documented e) Dubai Carbon work pack incorporated into environmental 18-month plan	4	Oct 2014: conducting Margham Plant & Field Environmental Assessment
5.9	A system is in place to ensure that findings from other processes such as incident investigation, audits, Hazops, SIL studies, etc. are used to improve operating excellence.	Audit findings addressed Incident Investigation findings addressed STOP Cards Reviewed and trended	Incidents: reviewed at weekly staff meeting Weekly Staff Meeting: any relevant items discussed at meeting and added to Action List if actions are required. Shell audited Incident Management System in Oct 2012 and 25 of 25 findings are complete Q1/2014 (Intelex was last one). Q4/2014: Added HSE Department audit to ASC	4.3	Utilize Intelex to it's full potential and incident investigation training
5.10	Energy Conservation is a part of operations and maintenance activities.	DUSUP Energy Conservation Program	Fuel, flare and fugitive emissions being addressed. Continuously on the lookout for new items. Flare meter is operational. Margham fuel use reduced 63% from 5014 mmscfd in 2008 to 2011 to 1875 mmscf in 2013.	4	RR - what is process, EMS system, add forward thinking to SOP. MOC approved to install electric starters in ICs. Margham compression study is expected to identify further fuel savings.
5.11	An Asset Integrity Management System (AIMS) is established based on applicable Engineering and International Standards.	AI Engineer AI Consultant AI inspection program	a. AI Steering Committee Established b. Consultant appointed to manage AI c. Inspector assigned full time to AI. d. AI KPIs set for Hydrocarbon Releases and Safety Critical Maintenance Backlog e. RBI of plant area 10 progressing well	3	a. Hire an experienced AI Engineer b. Develop PIMS and FIMS in 2015 c. Develop SIMS, WIMS and EIMS in 2016 d. Document full AIMS in 2016
			Score	3.88	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

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Element 6 - Management of Change

Temporary or permanent changes to design, process, systems, safety devices (including bypass, set point and test frequency), equipment functionality, materials and other things that could materially impact safe operations will be evaluated and managed to ensure that HSE risks arising from the changes remains at an acceptable level and that applicable laws, regulations & standards are followed. Changes to procedures and organization will be evaluated by the appropriate subject matter experts to determine if a MOC is required.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
6.1	A System exists for the management of temporary or permanent facility / process changes.	MOC Process SOP-D-042	a) Management of Change (MOC) System is being used for the Management of Change. b) HR procedure in place for organizational changes c) SOP-D-042 MOC developed to cover all DUSUP sites. d) Shell and Marsh audited in 2012 e) Decided against electronic signatures. f) Oct 2013 - all locations following SOP. g) May 2014 - MOC incorporated into Competency Program h) 2014: Independent audit of process conducted by Life Cycle Engineering	4.67	HR procedure is in place for Organisational changes
6.2	Changes to laws, regulations and standards are identified and incorporated into policies, practices, procedures, documentation, design criteria and operations as appropriate.	Changes to laws & regulations are identified and incorporated into SOP's.	Regular review and update of SOPs is taking place. Local regulatory review included in Excel sheet system and conducted each 6 months. Lifesaving Rules designed per industry norm.	4	Consider referencing industry best practices and benchmarking in Means...
6.3	Organizational and personnel changes of significant impact are evaluated for business and operational impacts.	All personnel and organizational changes that may have significant operational impacts are qualitatively evaluated and reviewed within the OES process in accordance with Element 3.	Succession planning process in place, including MOC of significant changes.	4	
6.4	Ensure that energy efficiency improvements are a part of plant modifications when practical	MOC Process	MOCs consider energy efficiency.	4.33	
			Score	4.25	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

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Element 7: Third Party Services

Third parties that provide materials and services (personnel and equipment) or operate facilities on DUSUP's behalf, have an impact on DUSUP's operations and its operating excellence. It is essential that third party services be provided consistent with applicable DUSUP policies and business objectives.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
7.1	A system is in place for the evaluation, selection and on-going assessment of the performance of critical material vendors and service contractors that includes an assessment of their capabilities and competencies to perform services or provide materials in accordance with contract requirements.	Systems are in place for work performed by contractors, suppliers and others include the following: - Pre-qualification - Selection - Monitoring - Reporting	- Detailed pre-qualification process is applied before finalizing the bidders' list. - Contractors Pre-Qualification database updated quarterly. - Tender award is in line with DUSUP procedures and DOA - Contract Kick-off meeting is required for all major contracts . Meeting agenda includes communication, progress monitoring and reporting systems. - Checklist for use by Project Manager at kick-off meeting uploaded on the Intranet - Performance is monitored during the project implementation. - Contracts close-out process in place (updated / improved Q3/2013, including form. - Developed pre-qualified Contractor List and put on intranet to the required audience. - Contractor performance review and evaluation establihsed in procedure 810 Q1/2015 - Provision of closeout reports created for both Vendor list and Emergency Vendor list	4.3	
7.2	The roles, responsibilities, deliverables and performance standards, including HSE, are defined, understood and agreed upon by DUSUP and the Third Party and included in the contract. Systems are in place to ensure compliance.	- Written procedures related to obtaining materials and services are provided in the DUSUP Contracts Procedure, Purchasing Guidelines, QA & QC Procedures - Offer and acceptance of DUSUP Purchase Orders, Contracts, DUSUP terms & conditions and HSE guidelines for contractors	- DUSUP contracts procedures including pre-qualification of contractors in place and periodically reviewed. - Scope of Work documents include HSE and Technical Deliverables lists. - Contract Kick-off meeting is required for all major contracts. Technical and HSE Deliverables are re-confirmed during kick-off meetings. - Performance Evaluation reporting is being implemented for contracts above $50k. - Procedure in place for evaluating contracts below $50k on need basis if Users had issues working with Contractor	4	
7.3	Hazards and risks associated with contractor and procurement activities are identified, managed and communicated.	- Provision of HSE guidelines to contractors - Risk assessments prior to work execution	- HSE guidelines are available on DUSUP Internet and informed to contractors at tendering and pre-award stage. - Post-Award contractor risk assessment is included in Project Process SOP	3	RR - Consider broader training and testing of contractor supervisors.Two components added to projects OES goal (PM training & train the trainer into contractor processes) Contractor HSE Guideline being strengthened - Significant review completed, LH finalizing. (Part of a Contractor Management SOP and wider business process).
7.4	Interfaces between organizations providing and receiving services are effectively managed.	- Kick-off meetings - Regular project update meetings	- Agenda for kick-off meeting includes interfacing requirements. Project specific requirements are included in the project execution plans. - Meetings are held routinely with all concerned parties to discuss the interfacing issues.	4	
7.5	Clear deliverables and performance standards are agreed to and systems are in place to assure HSE and technical compliance.	- Pre-determined user requirements with detailed scope of work and technical specifications - Orderly inspection of work performed and material delivered	- Project specifications in place - Inspection of goods receipt in place - PMI implemented on warehouse material receipts - Project Material Receipt complete - Material rejection statistics 0.09% by quantity - established AI Inspection program & staffed	3	Contractor Management Program to be developed.
7.6	Products and services are verified as meeting National and International HSE standards.	Technical specifications and scope of work are updated, in line with the required HSE standards.	- Relevant DUSUP procedures and international standards are included in the Scope of Work documents. Inspection and Test Plans are included to verify compliance. Data sheets are provided to ensure standards are met. - Requirements included in SOP-D-026; Section 3.2 and 3.5	4	
			Score	3.72	
			Poor 0 - 1		
			Good 2 - 3		

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Element 8: Incident Management
Effective reporting, investigation, and follow-up of incidents and near misses is carried out to prevent recurrence and improve performance.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
8.1	A system is in place for timely reporting, investigating, analyzing, and follow-up of incidents and near misses with investigations identifying root causes and contributing factors.	SOP-D-003 Incident Investigation, including Incident Report Form	This system is in place, operating and up to date. Shell HSE conducted IR audit Oct 2012 and findings implemented.	4	New Intelex incident management module to go live Q4/2014 Comprehensive training to be delivered by RR post intelex go live. Awareness training to be given to all - Pipeline office and 1/2 Maintenance done.
8.2	Incidents are categorized and trends analyzed. Lessons learned from incidents and near misses are communicated across the organization and to other operating companies where applicable.	The DUSUP Intranet has all the incident data including historical incidents, any high potential or serious accidents are comunicated to the organisation through either e-mail or safety meetings depending on the severity	a) Toolbox talks, staff meetings and safety meetings are used to communicate lessons learned. b) Where applicable, procedures are updated. c) Safety Alerts are issued when appropriate (formal bulletins or email notes). d) STOP program and analysis in place e) set goal to evaluate one major industry incident per year and did Longsford in 2014	3.5	Improve incident trend analysis and distribute to employees. New incident reporting database - go live end April (5 of 8 sessions complete) Best in class analysis (using DNV SCAT) has been built into the system. Consider the addition of PPR/NOC violations. Consider a PL Patrol incidents module in Intelex.

Score	3.8
Poor 0 - 1	
Good 2 - 3	
Best 4 - 5	

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Element 9: Emergency Preparedness
Emergency planning and preparedness help ensure that in the event of an incident, effective actions are taken for the protection of employees, third parties, the public, the environment and DUSUP assets.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
9.1	A system is in place to ensure emergency preparedness. Emergency response plans are documented, accessible and clearly communicated and are based on the risks that potentially impact the operation.	SOP-D-005 Incident Management Plan	Incident Management Plan is available and current. LNG and findings from Operation Swift included. Will share DPE Relative Response center. Mar 2014 finalized call center sharing with DPE.	4	Review IMP Develop IMGs/IAPs GRG reviewing. Develop HR ERP/RRT Drafted. Develop Well Control Contingency Plan (WCCP) Develop media response plan Develop pandemic response plan
9.2	Incident management training is provided for designated emergency response personnel.	a) Emergency drills (internal / joint external) b) Emergency training such as fire fighting, first aid c) Supervisor assessment included in Competency Programs	PL Mgr attended Incident Command course. DECT overview presentation rolled out. FiFi and Confined Space training implemented.	3.5	Emergency Response Step Change Improvement Plan developed for implementation May - Dec 2014, including: a) switch to ICS system for global consistency b) developing competency standards for responders c) appropriate training. Underway.
9.3	Business Continuity Plans are in place and regularly reviewed.	SOP-D-028 Business Continuity Plan SOP-D-027 BCP Guideline SOP-D-029 IT Disaster Recovery Plan	Plans developed. Conducted one emergency drill including DR for commercial team.	3.5	Drill IT post FOC. Look into the possibility of scoring individually by Area
9.4	Drills and exercises are conducted to assess and improve emergency response/crisis management capabilities, including liaison with and involvement of external organisations.	Drills and exercises are scheduled based on OES goals	Continuing quarterly exercises as noted in OES goals. Included services groups in Exercise Strike 2014. Margham and PL/GCS muster drills tested and adequate.	3.5	Exercise schedule to be developed company wide based on MIH and GRG review.
9.5	An appropriate level of Emergency First Aid is provided to employees and contractors	Both Basic First Aid and Advanced First Aid training is provided to any employee who would like to participate.	Monitor % of staff trained in first aid (42% end Q4/2014). First Aid rooms and kits available.	5	
			Score	3.9	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

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Element 10 - Information and Documentation
Maintain accurate information on operations, products and facilities.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
10.1	A system is in place to securely manage drawings, design data and other documentation, including definition of responsibilities for maintaining this information.	Sharepoint Document Management System Document Retention Policy NOC Paper file system	Department Heads manage and maintain documents accordingly. Critical Document Management SOP developed and implemented.	4	Consider electronic NOC system Confirm multiple staff know how to access paper NOC files
10.2	Applicable regulations, permits, codes, standards and practices are identified. The resultant operating requirements are documented and communicated to the workforce.	SOP's Operating Procedures Critical Documentation	SOP's and Operating Procedures are current, available and communicated.	2.7	RR - transfer legal register and process into Intelex and keep it current Check IHS for codes and standards.
10.3	Pertinent records are maintained, available and retained as necessary. Obsolete documentation is identified and removed from circulation.	Sharepoint Document Management System Document Retention Policy OES Document Update Schedules	Converted hard copies to electronic version (available on the intranet).	3	
10.4	Scope and format of technical documentation will be agreed for each facility and will form part of the design input for new facilities and modifications.	Format of technical documentation is included as a part of Scope document for Consultants / Contractors.	Included as a part of Scope document. Title blocks being systematically updated to DUSUP.	4	
10.5	Employee health, medical and occupational exposure records are maintained with appropriate confidentiality and retained as necessary.	Record being maintained by DP Clinic	DPE clinic maintains medical files. Ocupational exposure recording included in IH program.	4	
10.6	Document energy saving achievements	Energy Conservation Program	Quarterly report issued, available to employees on the intranet and regular updates provided to the Dubai SCE	4	
			Score	3.6	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

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Element 11: OES Status Review and System Assessment
The establishment of OES objectives and review of implementation status & effectiveness is critical to the success of OES.

	Expectation	Means to Meet Expectation	Status	Score	Improvement Plan Next Steps
11.1	A system is in place to assess OES Performance on a regular basis and to implement measures to correct deficiencies and improve performance.	Review OES Action List at Margham Staff meeting monthly with most of the OES Team present.	Active	4	
11.2		Quarterly Review Meetings to assess score of each element, consider changes, review sub-team goals status, discuss consistency issues and conduct any other OES business.	Active. Score level criteria set, primarily for moving from score of 4 to 5.	4.7	Added annual audit to HSE OES goals & linked with ASC.
11.3		Annual review and report	Annual reports issued 2011 & 2012. Informed total organization of content and encouraged them to read and comment.	4	
11.4		Periodic OES Audit: internal audit annually and external audit each 3 - 5 years.	2011 - OES Internal Audit SOP written 2012 - Designated staff attended Audit course 2013 - Internal audit of all elements conducted and findings implemented. Set schedule for internal audit of 3 elements per year into OES Goals. 2015 - External OES Audit conducted	4.7	
			Score	4.3	
			Poor 0 - 1		
			Good 2 - 3		
			Best 4 - 5		

Score System

0	Systems do not exist - There is little awareness or understanding of the Expectation
1	Start of the Learning Process - Some informal systems are in place and there is some awareness.
2	Learning & Developing Phase - Element requirements have been identified and a plan is in place to develop the required processes. People directly involved with system development and implementation are aware of the Element requirements.
3	Good Average Performance - processes are largely in place and a plan to implement the remaining processes has been developed. People's awareness of their roles and responsibilities is good. Compliance can be demonstrated.
4	Very Good Performance - Processes are in place the fully address the Elements. Compliance with applicable legislative requirements, company targets and company processes can be demonstrated. People are fully aware of their roles and responsibilities.
5	Best-In-Class Performance - Processes are in place that demonstrate continuous improvement. Performance is recognized as being peer / industry best-in-class and people actively promote the culture that delivers continuous HSE and technical performance improvement.

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Functional AREA	SCORE LEVEL			
	2	3	4	5
	Learning & Developing Phase	Good Average Performance	Very Good Performance	Best-In-Class Performance
Processes	Element requirements have been identified and a plan is in place to develop the required processes.	processes are largely in place and a plan to implement the remaining processes has been developed.	Processes are in place the fully address the Elements.	Processes are in place that demonstrate continuous improvement.
People	People directly involved with system development and implementation are aware of the Element requirements.	People's awareness of their roles and responsibilities is good.	People are fully aware of their roles and responsibilities.	people actively promote the culture that delivers continuous HSE and technical performance improvement.
Performance	Element requirements have been identified	Compliance can be demonstrated	Compliance with applicable legislative requirements, company targets and company processes can be demonstrated.	Performance is recognized as being peer / industry best-in-class

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