



COMMON MANAGEMENT SYSTEM STANDARD 17 INSPECTION, MEASURING AND MONITORING

DATE: 27 MAY 2019



DATE	NAME	CHANGE	APPROVED	REVISION
12/07/2016	Keith Ashby	Issued for Use	Executive Leadership Team (ELT)	0
27/05/2019	Keith Ashby & Julia Lee	Reformatted on new IGO Template	ELT	1



TABLE OF CONTENTS

1.	OVERVIEW	1
2.	APPLICATION.....	1
3.	PERFORMANCE REQUIREMENTS	1
3.1	Regular Inspections	1
3.2	Measurement, Monitoring and Collection of Data	2
3.3	Quality Improvement and Variability Reduction	2
3.4	Use of Empirical Statistical Methods.....	2
3.5	Continual Efficiency Improvement.....	2
3.6	Maintenance and Calibration of Equipment	2
3.7	Data Management and Monitoring of Information	3
3.8	KPIs for Monitoring Performance	3
3.9	Training	3
4.	RELATED DOCUMENTS	3

1. OVERVIEW

This document sets out IGOs standard for inspections, measuring and monitoring. In overview, it is intended that IGO establishes, implements and maintains business processes, procedures and programs to regularly inspect, monitor, measure and assess business performance.

More specifically it is intended that IGO:

- inspect, measure and document the impact of our activities, evaluating the effectiveness of controls and monitoring defined performance criteria associated with the health and safety of personnel, the workplace, the environment, and the communities where we explore and operate, to enable the assessment of performance and the level of conformance with the IGO Management System
- measure and collect data on the production process performance
- continually improve the quality of the output of its various production processes by identifying and removing the causes of defects and minimising variability in production and business processes
- use empirical, statistical methods to improve quality and reduce variability
- continually seek to improve the efficiency of our business processes
- engage and train people with, and in, the use of empirical, statistical methods
- select key performance indicators (KPIs) to drive the outcomes and behaviours desired.

2. APPLICATION

This standard applies to all IGO operations and managed activities.

3. PERFORMANCE REQUIREMENTS

3.1 Regular Inspections

IGO will ensure that regular inspections are scheduled and undertaken of all work areas at operational sites, using documented checklists, to identify sub-standard conditions and practices.

Inspection schedules take into account:

- the level of risk associated with specific activities in the work area
- statutory obligations
- the identification of non-conformances with standards and system requirements
- the identification of hazards
- the results of previous inspections.

Regular inspections will be undertaken at other locations, including corporate offices and exploration projects, at a schedule and level of detail that is appropriate for the location and is based on the risks, hazards and requirements relevant to the location.

At the completion of each inspection, the completed inspection checklist is provided to the manager responsible for the work area. Non-conformances that are not corrected immediately are entered into the electronic action tracking system (INX) for tracking through to close-out.

3.2 Measurement, Monitoring and Collection of Data

IGO will establish processes, and hardware and software solutions, to enable the effective and 'fit for purpose' measurement and collection of data regarding performance at its operating sites.

The frequency, nature and location of monitoring must be appropriate to the level of risk and relevant legal, licence to operate, and other obligations. Monitoring schedules must be developed, maintained and reviewed at least annually.

3.3 Quality Improvement and Variability Reduction

IGO will improve the quality of the output of its production processes by identifying and removing the causes of deficiencies and will minimise variability in production and business processes through short interval control.

Data must be subject to analysis, trending and interpretation by competent personnel. Appropriate action is taken to address identified issues and concerns. To this end, IGO will use analytical processes that enable the business to:

- recognise the 'right' problem to work on (prioritising the significance of the variance or non-conformance)
- define specific targets or goals
- measure key aspects of the current process and collect relevant data
- analyse the data to investigate and verify cause-and-effect relationships. Determine what the relationships are and attempt to ensure that all factors have been considered. Seek out the root cause of the defect or variance under investigation
- improve or optimise the current process based upon data analysis. Complete such experience and trials as required to test alternate methodologies and capabilities
- control production processes to ensure that any deviations from the target are corrected before they result in product deficiencies or under delivery.

3.4 Use of Empirical Statistical Methods

IGO will use empirical statistical methods as selected by line management to guide and inform decisions taken to improve product quality and reduce production process variance.

3.5 Continual Efficiency Improvement

IGO will dedicate resources to the ongoing identification of opportunities for efficiency improvement and waste reduction.

3.6 Maintenance and Calibration of Equipment

IGO will ensure:

- maintenance, service and calibration requirements for inspection, testing, monitoring and measurement of equipment are formally documented for effective planning and recording and to ensure ongoing integrity of plant and equipment. Equipment must be regularly maintained, serviced and calibrated. Calibration and maintenance records must be maintained

- computer software, and other equipment that does not have a calibration standard, must be formally verified as being suitable for its intended application prior to initial use and reconfirmed as necessary.

3.7 Data Management and Monitoring of Information

IGO will ensure:

- data is entered into the data management systems systematically, accurately and without undue delay
- all reported data is checked, verified and validated by competent person(s) prior to use in making material decisions or publication.

3.8 KPIs for Monitoring Performance

IGO will:

- establish a set of KPIs that provide relevant information to enable IGO to measure the performance to plan and the effectiveness of the components of the IGO Management System
- ensure information arising from the KPIs is regularly reviewed by IGO site and senior management as part of the IGO performance reporting processes
- ensure KPIs are reviewed annually to ensure they remain relevant and appropriate for monitoring performance.

On operational sites, IGO will use production boards as visual aids for the daily management of efficiency improvement, and variability reduction.

3.9 Training

IGO will ensure:

- monitoring is undertaken by personnel with appropriate training and competency using appropriate techniques for sampling, analysis and data management
- analytical sample collection and handling is completed in accordance with recognised international/national methodologies and quality assurance/quality controls
- adequate skills capacity is retained within operational sites to enable the application of empirical statistical methods to quality and efficiency improvement, and variability reduction.

4. RELATED DOCUMENTS

- IGO Common Management System Standard 2 - Legal and Other Obligations
- IGO Common Management System Standard 3 - Risk Management
- IGO Common Management System Standard 6 - Training, Competence and Awareness
- IGO Common Management System Standard 8 - Document Control, Records and Data Management