



**INTEGRATED MANAGEMENT**  
**SYSTEM MANUAL**  
**“IMS”**

Based on **ISO 9001:2008** and  
**ISO 14001:2004 “E”** Standards

**Approved by** Eric Barbe and David Majni

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**Issued To** Management Representative

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## *SECTION I*

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# General and Quality Management System

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**SECTION /**  
**CLAUSE    TITLE**

### **1.0 SCOPE**

**Euclid Precision Grinding and EPG Metals provide cost effective, high quality, reliable and environmentally safe high precision abrasive metal-working services, sales and distribution of refractory metals.**

#### **4.1 Exclusions: ISO 9001:2008 and ISO 14001:2004; all clauses of section 7.3.**

**Justification:** Euclid Precision is not design capable.

**ISO 9001:2008; all clause of section 7.5-2.2**

**Justification:** Euclid Precision Grinding and EPG Metals does not provide the service of post-sale servicing of parts.

### **4.2 GENERAL REQUIREMENTS**

- a. Euclid Precision Grinding and EPG Metals's integrated management system has been established, documented, implemented and maintained as a way to improve continuously the performance of our organization. The IMS Manual describes our quality and environmental policies and general company-wide structure and procedures for maintaining an integrated management system meeting the requirements of **ISO 9001:2008** and **ISO 14001:2004**.
- b. Euclid Precision Grinding and EPG Metals's integrated management system is based upon a "process approach" to management, demonstrated by our commitment to:
  1. Identify the processes needed for the effective operation of our integrated management system and their application throughout the organization (see each MSP);
  2. Determine the sequence and interaction of our integrated management system processes;
  3. Determine the criteria and methods needed to ensure the effective operation and control of these processes;
  4. Ensure the availability of resources and information necessary to support the operation and monitoring of these processes;
  5. Monitor, measure and analyze these processes; and



6. Maintain outsourced processes as an integral part of the management system.
  - c. Euclid Precision Grinding and EPG Metals manages these processes in accordance with the requirements of **ISO 9001:2008** and **ISO 14001:2004**. Each MSP Process Map provides a global view of the process linkages described in our integrated management system.
  - d. Euclid Precision Grinding and EPG Metals maintains control over all **outsourced processes** that affect product conformity, including the type, nature and extent as outlined in each MSP. Special attention is paid to this to ensure that Euclid Precision Grinding and EPG Metals meets all customer regulatory and statutory requirements.

## **4.3 DOCUMENTATION REQUIREMENTS**

### **4.3.1 General**

- a. Euclid Precision Grinding and EPG Metals maintains a documented integrated management system as a means to ensure that processes, products and services conform to specified requirements and to minimize the environmental impacts of our activities.

#### **Level 1: Integrated Management System (IMS) Manual**

The IMS Manual includes Euclid Precision Grinding and EPG Metals's quality and environmental policies, quality and environmental objectives and the general company-wide structure, scope and methods for maintaining the integrated management system, including application of requirements. The IMS Manual references the related integrated management system procedures that are followed to meet specified policies and approaches.

#### **Level 2: Management System Procedures (MSP)**

Documented procedures are used to specify **who** does **what**, **when** it is performed, and **what documentation** is used to verify that the quality or environmental activity was executed as required. Procedures reference related work instructions, records and forms.

#### **Level 3: Work Instructions (MSWI)**

Work instructions are used by Euclid Precision Grinding and EPG Metals to detail **how** particular tasks are to be performed where the absence of such instructions would adversely affect quality or have an impact on the environment.



#### **Level 4: Records and "Forms"**

Records are used by Euclid Precision Grinding and EPG Metals to provide assurance and evidence that the required product or service quality was achieved and that the company's integrated management system has been implemented correctly.

#### **Level 5: External Documents**

Euclid Precision Grinding and EPG Metals identifies and controls those external documents needed to plan and operate the entire system (MSP 5.5-2).

### **4.3.2 IMS Manual**

- a. At Euclid Precision Grinding and EPG Metals, the IMS Manual is the cornerstone of our integrated management system.
- b. The IMS Manual is a controlled document that is reviewed and approved by management.

### **4.3.3 Control of Documents**

- a. Euclid Precision Grinding and EPG Metals identifies and controls documents and data in any media that relate to the requirements of **ISO 9001:2008** and **ISO 14001:2004**.
  1. Approval of documents for adequacy by authorized employees prior to issue.
  2. Periodic review and revision of documents, including the processes for re-approval and re-issuing of documents. (Periodic review of documentation is also addressed in **Management Review**.)
  3. Identification of changes to and the current revision status of documents, including approval dates and/or dates of revision.
  4. Tracking and controlling distribution of applicable documents to ensure that current/relevant versions are available at locations where related activities are performed.
  5. Legibility and ability to easily retrieve integrated management system documents.
  6. Identification and control of documents originating externally to Euclid



Precision Grinding and EPG Metals.

7. Identification and/or destruction of obsolete documents at all points of issue and points of use to prevent their unintended use.
  8. Orderly maintenance of documents and retention for a specified period.
  9. Establishing and maintaining methods and responsibilities for the creation and modification of various types of documents.
- b. Records are a special type of document and are controlled at Euclid Precision Grinding and EPG Metals.

#### **4.3.4 Control of Records**

- a. Euclid Precision Grinding and EPG Metals's integrated management system is documented by the use of quality and environmental records. Records are valuable to Euclid Precision Grinding and EPG Metals in the following ways:
1. They provide evidence and assurance that the quality and environmental requirements for the product/service were satisfied and demonstrate conformance of the management system.
  2. They show the degree of implementation and success of our integrated management system.
  3. They provide a basis for measurement and feedback essential for continual improvement.
- b. Euclid Precision Grinding and EPG Metals has the following policies regarding records:
1. Records shall be legible, clearly identified and traceable to either the product or service involved, or to the management system activity they document.
  2. Records shall be filed, indexed, and maintained in a manner that provides for ready access or retrievability, and prevents loss, damage, or deterioration.
  3. Retention times shall be defined for all quality and environmental records.
  4. Records shall be an accurate and truthful representation of actual events, documented in a timely manner.



5. Employees involved in collecting data for records will be provided instructions and/or training to the degree necessary to ensure that the records are generated correctly.
6. Records shall be made available for review by the customer (or the customer's representative) when specified in the contract.

## **4.4 Planning**

### **4.4.1 Environmental Aspects**

The Environmental Aspects Excel Spreadsheet is reviewed at least twice a year as per Environmental Management Review. The Management Representative ensures that it is up-to-date and that aspects with significant impacts are considered in setting environmental objectives and identifying capital projects.

### **4.4.2 Environmental and Other Requirements**

Review and evaluation of legislation and other requirements, as appropriate to the activities at the single company site in Willoughby, are handled by means of environmental work instructions where legislation is directly related to an aspect of the process or other activity conducted by Euclid Precision Grinding and EPG Metals. This process or activity will be considered as being significant and so recorded in the environmental Excel Spreadsheet.

### **4.4.3 Objectives, Targets and Programs**

Company-specific objectives and targets are established following the review of environmental aspects. Objectives and targets must be written for environmental aspects with a significance value of four or five, but they may be written for aspects with lower significance at the discretion of the President of Euclid Precision Grinding and EPG Metals

Personal performance objectives for appropriate employees within the organization also include environmental issues and concerns.



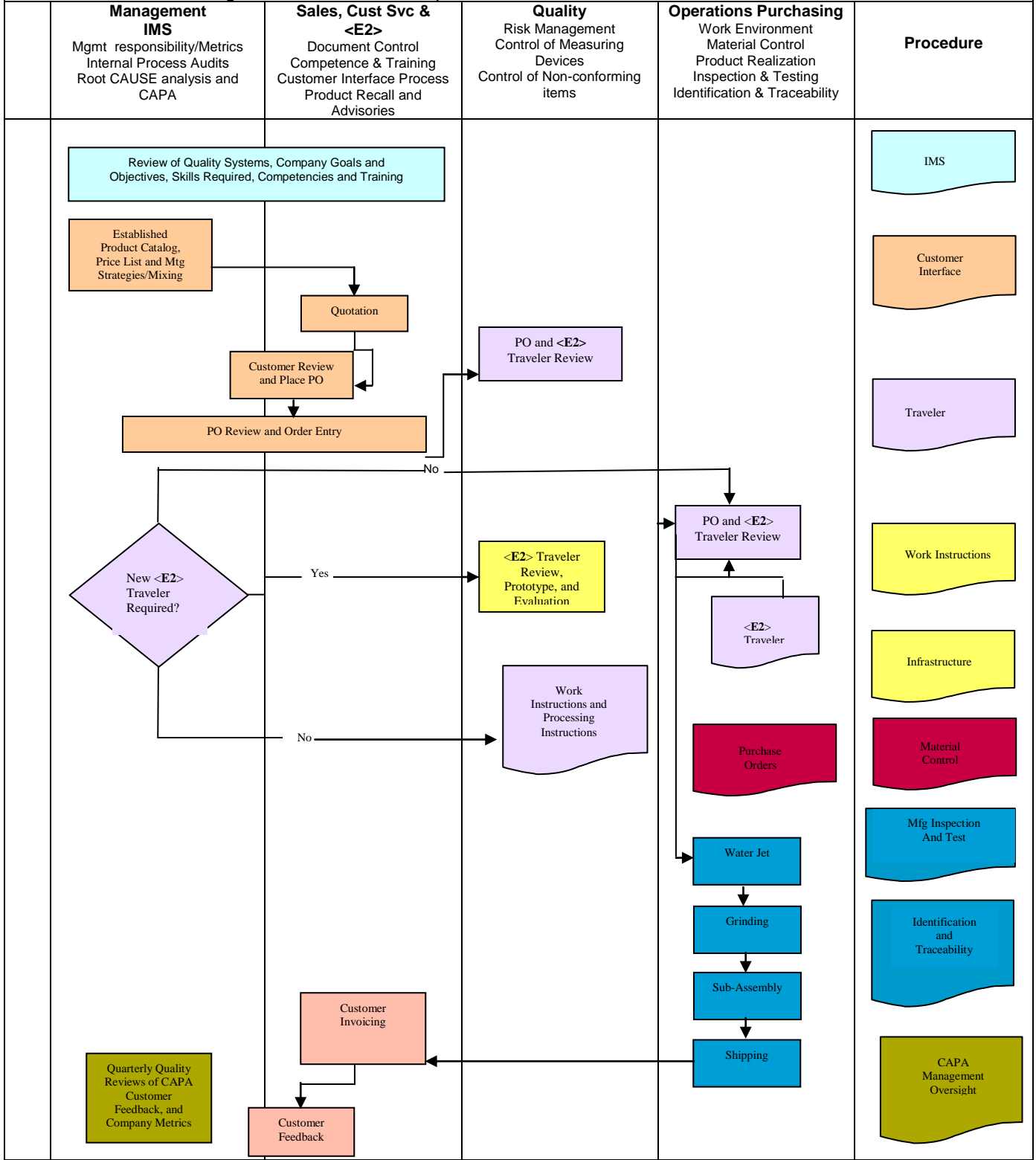
**Integrated Management System Manual**  
**Rev. J Date 13 September 2010**

Figure 1 Overall Process Flowchart



**Integrated Management System Manual**  
**Rev. J Date 13 September 2010**

**Euclid Precision Grinding and EPG Metals Group**





**Figure 2 Overall Quality Documentation**

Overall Quality Documentation –Euclid Precision Grinding and EPG Metals Group				
	Management	HR/IT/Sales	Quality	Operations
<b>&lt; Oversight</b>	Management System Manual (MSM)	Document Control and Quality Records		Infrastructure & Work Environment
	Management Review Monitoring and Metrics	Competence, Awareness and Training		<E2> Traveler
	Internal Process Audits		Environmental Control	
<b>&lt; Order Processing</b>		Customer Interface in <E2>	Customer Interface in <E2>	Pollution Prevention and Waste Minimalisation
			Preventative Maintenance	Material Control Purchasing and Storage
			Pollution Prevention and Waste Minimalisation	Identification and Traceability
	Control of Measuring and Monitoring Devices		Environmental Planning	Control of Non-conforming Product
	Corrective and Preventative Actions & Root Cause Analysis		Environmental Control	



## **4.5 Implementation and Operation**

The environmental and general management program elements are reviewed annually and changes made as necessary.

### **4.5.1 Roles, Resources, Responsibilities and Authority**

The following roles and responsibilities have been designated for the control of the environmental management system operating under [ISO 14001:2004](#). Where appropriate, these responsibilities are detailed in a specific MSP.

#### **Synopsis of Roles**

1. All Employees are responsible for the routine monitoring of environmental performance. Spill incidents and other environmental issues and concerns are reviewed and discussed during meetings. The Team provides input to the Management Representative to ensure that issues and concerns are addressed. The Team consists of representatives from Operations, Facilities and Quality.
2. The Management Representative is responsible for the documentation of the IMS system.
3. The Management Representative and employees are responsible for development and maintenance of the system and carrying out the recommendations of Management; and for integrating environmental considerations with those of health & safety.
4. The Internal Audit Team carries out the internal and environmental audit program, and provides input from audits to Management Representative to ensure maintenance of the program.
5. The Management Representative is responsible for the control of the EMS and its co-ordination with the other management systems operating within Euclid Precision Grinding and EPG Metals, including:
  - Setting the audit program;
  - Controlling system documents and records;
  - Preparing audit summary report for EMS section of Management Review;
  - Setting the environmental management program;
  - Aspect identification and preliminary evaluation;
  - Updating legislation record;
  - Coordinating environmental training program;
  - External communication on environmental concerns;
  - Drafting environmental procedures as required;
  - Suggesting objectives & targets based on the aspect evaluations;



- Providing environmental reports;
- Providing initial environmental risk assessments;
- Allocating responsibilities for detailed environmental risk assessments;
- Providing support for the Safety Team;
- Monitoring Environmental performance; and
- Responsibility for Documentation of the IMS System.

#### **Internal/Environmental Audit Team**

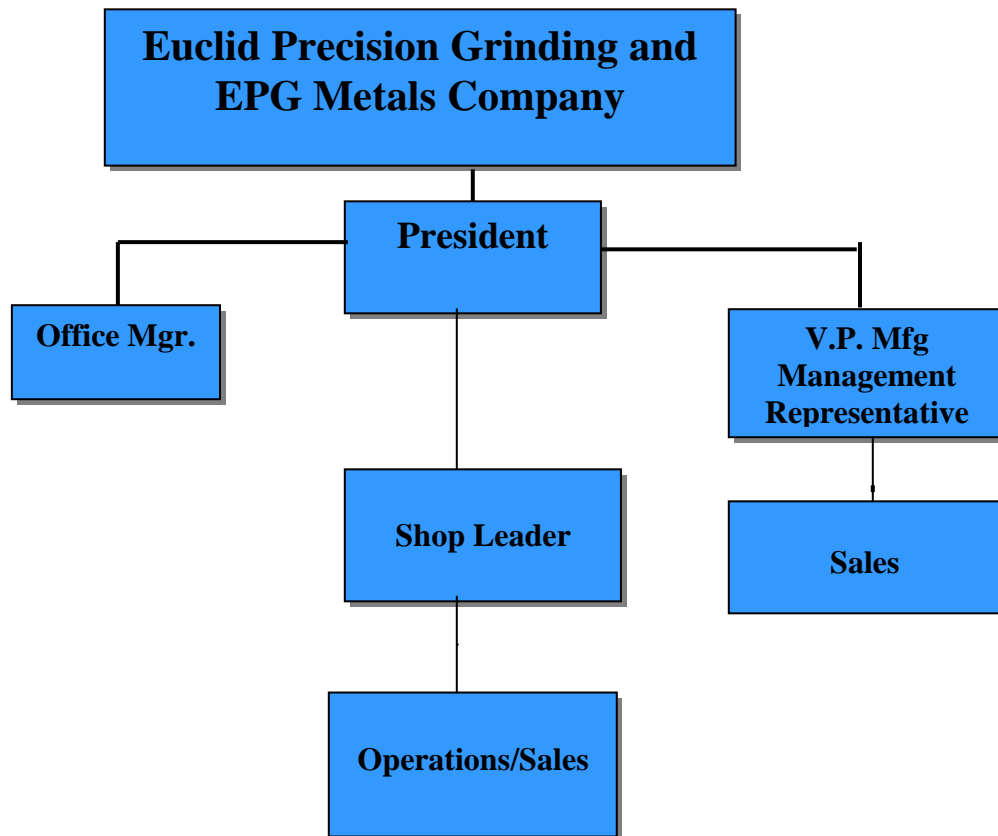
- Audit of the environmental management system and the quality system according to an agreed program.

#### **All Employees**

- Follow written procedures (MSP's) and work instructions according to the training provided, using the <E2>.
- Monitor **ISO 14001:2004** activities (e.g., audits, aspect identification and evaluation, procedure modification, etc).
- Assist to identify training requirements.
- Review environmental incidents, issues and concerns.
- Review, endorse and assist the implementation of action plans.
- Recommend additional corrective actions



**Figure 3 Organizational Chart**





#### **4.5.2 Training, Awareness and Competence**

Environmental and general information and training is provided to new employees during their orientation. Periodic information and training is also provided during routine safety meetings. On the job training ensures that employees perform their job tasks in a safe and environmentally responsible manner. The Management Representative has developed and implemented an employee training matrix. The matrix is used to help establish training topics for initial orientation, as well as the rating of **competency**.

Training records are maintained by The President. They are maintained for an employee's term of service, plus one year.

#### **4.5.3 Communication**

Euclid Precision Grinding and EPG Metals has several formal and informal methods of communication for the internal discussion of general, as well as, environmental issues and concerns. Euclid Precision Grinding and EPG Metals stresses its "open door" policy for employees to raise issues and concerns informally.

General and Environmental issues and concerns are addressed during the routine meetings of Management Review.

Communications from external sources are directed to the Management Representative. Documentation is maintained by the Management Representative.

Euclid Precision Grinding and EPG Metal's official website is used to communicate externally.

#### **4.5.4 System Documentation**

Documentation for the control of the environmental management system is held in electronic format, **paper format is for reference only**. Control copy #001 is the only exception.

Procurement/MSP's relate directly to the requirements of **ISO 14001:2004**. Work Instructions (MSWI) provide information for carrying out operational tasks. Quality Records are generated from both MSP's and MSWI.

#### **4.5.5 Document Control**

Euclid Precision Grinding and EPG Metals maintains documentation control of the IMS.



#### **4.5.6 Operational Control**

The operation of the manufacturing and associated processes in Euclid Precision Grinding and EPG Metals is controlled by work instructions. Environmental concerns may be addressed by including them in these work instructions. Contractors are made aware of environmental consideration through their contractor orientation.

#### **4.5.7 Emergency Preparedness and Response**

The facility's Emergency Response Plan is established as part of its Hazardous Materials Plan. It is formally reviewed and updated annually.

### **4.6 Checking**

#### **4.6.1 Monitoring and Measurement**

The on-going performance of the company, compliance with environmental legislation, reporting of the environmental aspects of the operations and the monitoring of targets, communications and improvements are monitored.

The Management Representative updates significant activities regularly.

#### **4.6.2 Evaluation of Compliance**

Records are maintained of all non-compliance with stated environmental policy and with requirements of the IMS whether caused by accident, faulty material or equipment failure. All incidents are investigated and the necessary corrective action implemented to avoid recurrence of the problem. Documentation is maintained by the Management Representative. The Preventative Maintenance System attempts to minimize the risk of incidents occurring through a regular program of maintenance activities.

#### **4.6.3 Nonconformity, Corrective Action and Preventive Action**

The Management Representative will utilize the company nonconformity, corrective action and preventive action databases for:

- a) identifying and correcting nonconformity(ies) and taking action(s) to mitigate their environmental impacts;
- b) investigating nonconformity(ies), determining their cause(s) and taking action(s) in order to avoid their recurrence;
- c) evaluating the need for action(s) to prevent nonconformity(ies) and implementing appropriate actions designed to avoid their occurrence;
- d) recording the results of corrective action(s) and preventive action(s) taken; and
- e) reviewing the effectiveness of corrective action(s) and preventive action(s) taken.



Actions taken shall be appropriate to the magnitude of the problems and the environmental impacts encountered.

The Management Representative will ensure that any necessary changes are made to the IMS after a document change is recorded.

#### **4.6.4 Control of Records**

Management Representative is responsible for identifying the environmental management records.

Management Representative also maintains training records. Training records are maintained for an employee's term of service, plus one year.

#### **4.6.5 System Audit**

A program of planned and systematic audits is implemented to ensure compliance with all aspects of the IMS and to maintain its continued effectiveness.

##### **Environmental Audit Program**

- The frequency of the audit plan is based upon identified environmental aspects and components of the IMS.
- The program covers key aspects of the environmental management system, environmental effects and frequency.

##### **Audit Performance**

- Internal auditors examine objectively, the evidence of compliance with the general and environmental systems. This may be with the use of a checklist or by following audit trails.

##### **Audit Report, Distribution and Closure**

- The Management Representative prepares and distributes the general and environmental audit reports, and closes all audits.



#### **4.7 Specific Environmental Management Review**

- At least twice a year meetings are held. As appropriate, members are responsible for addressing the topics, and for addressing the possible need for changes;
- Previous environmental actions;
- Environmental policy;
- Objectives and targets;
- Waste volume and waste disposal costs;
- Energy usage and conservation efforts;
- Audit results;
- Communications with regulatory agencies;
- Complaints from public or customers with respect to environmental performance;
- Communications with additional external bodies on environmental aspects;
- Training requirements;
- Environmental Aspects;
- Legal;
- CAPA; and
- Compliance Evaluation.



## *SECTION II*

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# Management Responsibility

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### 5.1 MANAGEMENT COMMITMENT

The commitment to the development, implementation and improvement of the IMS by Euclid Precision Grinding and EPG Metals's top management is reflected in our company's quality and environmental policy and objectives.

*Eric Barbe and David Majni*

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**Eric Barbe and David Majni**  
President

**Euclid Precision Grinding and EPG Metals**

### 5.2 CUSTOMER FOCUS



- a. The management at Euclid Precision Grinding and EPG Metals ensures that customer needs and expectations are determined, converted to requirements, and met with the aim of enhancing customer satisfaction according to the following policies:
  - 1. Planning of Product Realization: Section 7.1
  - 2. Determination of Requirements Related to the Product: Section 7.2.1
  - 3. Review of Requirements Related to the Product: Section 7.2.2
  - 4. Customer Satisfaction: Section 8.2.1
  - 5. Monitoring and Measurement of Product: Section 8.2.4
- b. Euclid Precision Grinding and EPG Metals's Management ensures, through management reviews and communication with employees, that customer satisfaction is a continuous focus.

### **5.3 QUALITY AND ENVIRONMENTAL POLICY**

Euclid Precision Grinding and EPG Metal's quality policy and objectives are displayed openly as a sign of the pride and commitment and as a clear reminder of focus and direction. The quality policy and environmental policy statements for Euclid Precision Grinding and EPG Metals are as follows:

**Euclid Precision Grinding and EPG Metals'  
Quality Policy**

**Fully satisfy, our customers' requirements with the highest quality possible.**



## **Euclid Precision Grinding and EPG Metals's Environmental Policy**

**We are committed to formulating and supplying what we produce with due regard to quality and environmental impacts and in full compliance with relevant environmental regulation and any applicable codes of practice. We will:**

- **Evaluate all products for environmental effects and to minimize the potential for pollution.**
- **Dispose of all solid or liquid wastes in accordance with the requirements defined by regulation.**
- **Work with our suppliers and customers in applying full lifecycle responsibility to our products.**
- **Review our environmental performance on a regular basis and develop and implement procedures to ensure continuous improvement.**
- **Develop and implement Risk Control incentives to minimize the potential consequences of accident and emergency situations.**
- **Monitor our energy consumption on a regular basis and implement appropriate energy reduction and efficiency improvement programs.**
- **Establish objectives and targets to secure continual environmental improvements.**
- **Comply with applicable legal requirements, with other requirements to which Euclid Precision Grinding and EPG Metals subscribes and which relate to environmental aspects.**

**This policy is designed to ensure compliance with all Corporate environmental Objectives. Copies of this Environmental Policy and all Objectives and Targets are publicly available upon request.**

The success of our integrated management system is essential for our competitiveness and the prevention of pollution. It is vital that the employees of Euclid Precision Grinding and EPG Metals understand and adhere to our quality and environmental policies.



## **5.4 PLANNING**

### **5.4.1 Quality and Environmental Objectives and Targets**

It is the responsibility of Management to ensure that these quality and environmental objectives and targets are established at the relevant functions and levels and that they are consistent with Euclid Precision Grinding and EPG Metals's quality and environmental policies, including the commitment to the prevention of pollution.

## **5.5 RESPONSIBILITY, AUTHORITY AND COMMUNICATION**

### **5.5.1 Responsibility and Authority**

- a. The organizational structure shown in Figure 3, illustrates the responsibilities and authorities of employees who manage, perform, and verify work affecting the environment and/or the quality of products and services at Euclid Precision Grinding and EPG Metals. The roles, responsibilities and authorities of employees with regard to both quality and environmental issues are defined, documented and communicated to facilitate the implementation and maintenance of the integrated management system.
- b. The **PRESIDENT** is the leader of the quality and environmental efforts at Euclid Precision Grinding and EPG Metals and is responsible for the delegation of the various responsibilities for quality and environmental issues, and for the efficient operation of Euclid Precision Grinding and EPG Metals

The **VP Mfg** is responsible for the daily sales, operations and strategic and tactical planning. He must also ensure that EPG Metals' quality and environmental policies are effectively operating in his areas of his responsibility.

The **SHOP LEADER** is responsible for ensuring that Euclid Precision Grinding and EPG Metals's quality and environmental policies are being carried out on a daily basis.

Quality and the environment are the responsibility of each Euclid Precision Grinding and EPG Metals **EMPLOYEE**. Their responsibilities for activities affecting quality and the environment are specified further and explicitly in Euclid Precision Grinding and EPG Metals's IMS manual, procedures, and work instructions.



- c. The responsibility and authority for the integrated management system is communicated to all employees during quality and environmental awareness orientation training.

### **5.5.2 Management Representative**

- a. The **Vice President and Management Representative**, in addition to other duties, has the authority and responsibility for ensuring that the integrated management system is effectively established, implemented and maintained at Euclid Precision Grinding and EPG Metals in accordance with **ISO 9001:2008** and **ISO14001:2004**, and for reporting to Management on the performance of the integrated management system, including necessary improvements at the time of the management review. For quality and/or environmental related issues involving external parties, the Management Representative will act as the liaison.
- b. The Management Representative is also responsible for promoting an awareness of customer's requirements and Euclid Precision Grinding and EPG Metals's environmental aspects and IMS.
- c. The Management Representative is responsible for ensuring that quality and environmental objectives and targets are established, documented and maintained at all relevant levels within Euclid Precision Grinding and EPG Metals.
- d. The President, Vice President/Management Representative are responsible for training and the retention of such training quality records.

### **5.5.3 Communication**

- a. **Internal Communications** and **External Communications** have been established to direct the receipt and documentation of, and response to, communications regarding Euclid Precision Grinding and EPG Metals's integrated management system and environmental aspects (as determined through **Environmental Planning**). Such communications may include, but are not limited to:
  - 1. Statements regarding Euclid Precision Grinding and EPG Metals's policies for and commitment to quality and the environment.
  - 2. Employee, customer or other external party concerns and questions.
  - 3. Reports on Euclid Precision Grinding and EPG Metals's performance with regard to quality and environmental objectives and targets as determined during audits and management reviews.



## **5.6 MANAGEMENT REVIEW**

### **5.6.1 General**

Management conducts bi-annual reviews of the integrated management system (“Management Review”). The review is a documented activity with the purpose of:

- Assessing the suitability, adequacy, and effectiveness of the integrated management system in achieving the quality and environmental policies and objectives, in meeting customer needs, in satisfying the requirements of **ISO 9001:2008** and **ISO14001:2004**, and in complying with relevant legislation and regulations.
- Evaluating the need for changes to the integrated management system, including the quality and environmental policies and objectives, in light of audit results, changing circumstances and the commitment to continual improvement.

### **5.6.2 Review Input**

The Management Representative is responsible for ensuring that the necessary information is gathered to facilitate the Management Review. Inputs to the Management Review process include, but are not limited to, current performance data and potential improvement opportunities related to:

1. audit results;
2. customer feedback (including customer satisfaction measurement data and customer complaints);
3. process performance and product conformity;
4. status of corrective and preventive actions;
5. follow-up actions from previous management reviews;
6. changes that could affect the integrated management system; and
7. recommendations for improvement.



### **5.6.3 Review Output**

- a. The Management Representative creates written meeting minutes summarizing the Management Review activities, the conclusions reached and action items identified. These minutes are used to guide and improve our integrated management system at Euclid Precision Grinding and EPG Metals by documenting:
  1. Decisions made and actions planned to improve continuously the effectiveness of the integrated management system and related processes
  2. Decisions made and actions planned to continually improve our products to maintain a high level of customer satisfaction and consistently meet customer requirements
  3. Decisions made and actions planned for additional resources necessary for the effective operation of our integrated management system, including human resource, infrastructure and work environment needs
  4. Changes to Euclid Precision Grinding and EPG Metals's quality and environmental policies, objectives and targets (including those defined for product).



## *SECTION III*

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# Resource Management

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### 6.1 PROVISION OF RESOURCES

- a. The resource requirements for the implementation, management, control and continual improvement of the integrated management system and activities necessary to enhance customer satisfaction are defined in our procedures and the following sections of our IMS Manual:
  - 1. Planning – Section 5.4
  - 2. Management Review – Section 5.6
  - 3. Human Resources – Section 6.2
  - 4. Infrastructure – Section 6.3
  - 5. Work Environment – Section 6.4
  - 6. Planning of Product Realization – Section 7.1
  - 7. Determination of Requirements Related to the Product – Section 7.2.1.
- b. Resources at Euclid Precision Grinding and EPG Metals include human resources and specialized skills, infrastructure, technology, work environment and financial resources.

### 6.2 HUMAN RESOURCES

#### 6.2.1 General

Employees involved in the management, performance, and/or verification of work affecting quality and/or impacting the environment are qualified on the basis of competency, education, training, skills and/or experience.

#### 6.2.2 Competence, Awareness and Training

- a. It is the policy at Euclid Precision Grinding and EPG Metals to identify competence and training needs and provide for the training of employees performing activities affecting quality or impacting the environment.
- b. Since any process task, as outline in the MRP Process Maps, could influence, directly or indirectly, the product quality, the competence of **all** employees must be assured.



### **6.3 INFRASTRUCTURE**

- a. Critical infrastructure is identified and maintained for the following purposes:
  - 1. To create conforming product;
  - 2. To comply with relevant legislation and regulations;
  - 3. To prevent pollution; and,
  - 4. To provide an information system <E2> that adequately improves quality.
  
- b. Each Employee periodically assesses the infrastructure in their area(s) of responsibility. Each infrastructure assessment determines the following:
  - 1. Infrastructure needs, including buildings, workspace and associated utilities, equipment, hardware, software, technology and supporting services.
  - 2. The ability of infrastructure to meet the requirements in Section 6.3a.
  - 3. Necessary infrastructure improvements.
  - 4. Improving working conditions including, but not restricted to physical and environmental conditions, as well as things like noise, temperature, humidity and lighting.

### **6.4 WORK ENVIRONMENT**

- a. It is the responsibility of each employee to identify and manage both the human and physical factors of the work environment that are necessary to achieve conforming product, comply with relevant legislation and regulations and prevent pollution according to The **Pollution Prevention and Control and Waste Minimization Policy**.



## *SECTION IV*

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# **Product Realization**

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### **7.1 PLANNING OF PRODUCT REALIZATION**

- a. The Management Representative is responsible for performing product quality and environmental planning (7.2.1 and 7.5.1). This planning includes:
  - 1. Identification of the environmental aspects of Euclid Precision Grinding and EPG Metals's activities, products and services that can be controlled and over which Euclid Precision Grinding and EPG Metals can be expected to have an influence in order to determine those that have or can have significant impacts on the environment and keeping this information up to date.
  - 2. Consideration of these environmental aspects in the definition, monitoring and updating of quality and environmental objectives and targets and requirements for products, projects or contracts.
  - 3. Determination and provision of the necessary processes, documents, resources, infrastructure and work environment to produce conforming product, comply with relevant legislation and regulations and prevent pollution.
  - 4. Identification of the appropriate verification, validation, monitoring, inspection and test activities, operating criteria and the criteria for the determination of acceptable product.
  - 5. Identification of the records needed to provide evidence that the processes and resulting product conform to customer, legislative and regulatory requirements.
- b. Quality plans, contract-related work instructions, and other documentation resulting from the product quality and environmental planning processes are provided in a form suitable for the organization's method of operations.
- c. The goal of the product quality planning and environmental planning processes at Euclid Precision Grinding and EPG Metals is to ensure that the integrity of the integrated management system is upheld. That customer, legislative and regulatory requirements are met and continual improvement occurs.



## **7.2 CUSTOMER RELATED PROCESSES**

### **7.2.1 Determination of Requirements Related to the Product**

- a. Customer service is responsible for ensuring that the following customer requirements are identified and incorporated into the processes of the integrated management system:
  - specified customer requirements, including requirements for availability, delivery, and support (post-delivery activities);
  - requirements not specified by the customer but necessary for specified or intended use, where known; and
  - as indicated by the management representative, statutory and regulatory requirements applicable to the product.
- b. The Management Representative is responsible for identifying statutory, regulatory, legal and other requirements that Euclid Precision Grinding and EPG Metals subscribes and which are applicable to the environmental aspects of our processes, products or services.
- c. Euclid Precision Grinding and EPG Metals uses the following methods to identify customer requirements and additional requirements related to Euclid Precision Grinding and EPG Metals's processes, products and services:
  - Direct Conversations
  - Surveys
  - Focus Groups
  - Conferences
  - Members of Product Development Teams
  - Quality Function Deployment (QFD)
  - Advanced Product Quality Planning (APQP)
  - Customer Satisfaction Data
  - Design Reviews
  - Contract Negotiations
  - Market Research
  - Benchmarking (product, service, and/or competitor)
  - Monitoring Regulations



### **7.2.2 Review of Requirements Related to the Product**

- a. Reviews of requirements related to the product are conducted, documented and coordinated with the customer.
- b. The President and Vice President have the primary responsibility for coordinating reviews of quotations, tenders, and customer orders for products and services prior to their issuance or acceptance and assigning responsibilities for their execution.
- c. The President and Vice President are responsible for coordinating, notifying and documenting order/contract amendments with the customer and the affected departments.

### **7.2.3 Customer Communication**

- a. The President and Vice President have the primary responsibility for ensuring that communication with the customers of Euclid Precision Grinding and EPG Metals is established and effectively maintained.

## **7.4 PURCHASING**

### **7.4.1 Purchasing Process**

Purchasing is responsible for ensuring that purchasing processes are controlled such that purchased products and subcontracted services that have a significant impact on the environment or the quality of Euclid Precision Grinding and EPG Metals's products conform to specified requirements. These control activities are conducted according to **Supplier Selection and Evaluation (MSP 7.4-1)**.

### **7.4.2 Purchasing Information**

Purchasing is responsible for ensuring that purchase documents are reviewed and approved for adequacy of specified requirements prior to release.

### **7.4.3 Verification of Purchased Product**

- a. Verification through inspection is performed.
- b. Purchasing is responsible for ensuring that verification arrangements and the methods for product release are clearly defined in the purchasing documents in situations where verification is to be performed by Euclid Precision Grinding and EPG Metals or the customer at the supplier's premises.



## **7.5 PRODUCTION PROVISION**

### **7.5.1 Control of Production Provision**

Supervisors of departments involved in processes that directly affect quality of intermediate and end products, and/or operations and activities that are associated with the environmental aspects identified during **Environmental Planning** are responsible for ensuring that these processes are identified, planned, executed and maintained under controlled conditions. Controlled conditions are defined to include the following requirements:

1. Availability of information describing product characteristics - identified in Section 7.2.2 (Review of Requirements Related to the Product) of **ISO 9001:2008**.
2. Establishment and maintenance of the necessary procedures and/or work instructions where their absence could adversely affect quality or could lead to deviations from the quality and environmental policies, objectives and targets.
3. Availability of operating criteria that are defined in documented Procedures.
4. Establishment and maintenance of documented Procedures and requirements for the significant environmental aspects of products and services used by Euclid Precision Grinding and EPG Metals, as well as communicating these procedures and requirements to suppliers and contractors.
5. Use and maintenance of suitable equipment for production operations.
6. Availability and use of monitoring and measuring devices.
7. Implementation of monitoring and measurement activities.
8. Implementation of defined processes for release, delivery and applicable post-delivery activities.



## **7.5.2 Validation of Processes for Production and Service Provision**

- a. Process validation is performed to demonstrate the ability of the process to meet or exceed the planned results of form, fit and function fundamentals. Processes requiring validation at Euclid Precision Grinding and EPG Metals are subject to the following rules and safeguards, as applicable.
  1. Criteria for review and approval of the processes are established, and processes are pre-qualified in terms of their capability and comply with the requirements described in Section 7.5.1.
  2. The requirements and compliance of qualified processes, equipment and employees are maintained and documented in a manner to ensure product quality, safety and a minimized impact on the environment.
  3. Processes are performed and monitored by qualified employees.
  4. Additional records required to ensure conformity of product are developed and maintained.
  5. Processes are re-validated, as necessary.

## **7.5.3 Identification and Traceability**

Euclid Precision Grinding and EPG Metals maintains identification and traceability using drawings and purchase orders, if the customer makes a special request for such identification and traceability.

## **7.5.4 Customer Property**

- a. The President has the primary responsibility for ensuring that Euclid Precision Grinding and EPG Metals exercises care with customer property and that the property is identified, verified against specified requirements, protected and safeguarded until required for use or incorporated into our products. Customer property may also include intellectual property.
- b. Euclid Precision Grinding and EPG Metals maintains a documented procedure for ensuring that component parts, subassemblies, test materials and intellectual property supplied by our customers are properly controlled.



### **7.5.5 Preservation of Product**

a. Employees responsible for identification, handling, packaging, storage, protection and delivery of materials and products are also responsible for establishing, documenting and maintaining methods appropriate to preserve conformity of product and constituent parts during internal processing and delivery; and to minimize their potential environmental impacts. Euclid Precision Grinding and EPG Metals ensures the preservation of product in the following ways:

1. Identification: Specific details on the identification of product at Euclid Precision Grinding and EPG Metals are described in Section 7.5.3 (Identification and Traceability).
2. Handling: Euclid Precision Grinding and EPG Metals's policy is to use methods and means appropriate for the handling and transporting of product in a manner that prevents loss of product value, ensures employee safety, and minimizes potential environmental impacts.
3. Packaging: Products are appropriately packed and identified on the packaging in a manner that allows for ready identification through the stages of processing, prevents the loss of product value and minimizes potential environmental impacts.
4. Storage: Euclid Precision Grinding and EPG Metals maintains facilities, equipment and designated areas to store material in a manner that prevents loss of product value and minimizes potential environmental impacts (see Section 6.3 - Infrastructure).

Methods and means appropriate for ensuring proper receipt of material, and proper dispatch to and from the pertinent areas are required and used. Supervisors having jurisdiction over departments where product is stored are responsible for assessing the condition of those materials at intervals sufficient to guarantee the prevention of their damage or deterioration.

5. Protection: Products are protected during internal processing and delivery to maintain product quality and value when the product is under the company's control.
6. Delivery: The quality of the final product is protected after final inspection and test. Where contractually specified, Euclid Precision Grinding and EPG Metals is responsible for packaging and preservation during transit, including delivery to destination.



## **7.6 CONTROL OF MONITORING AND MEASURING DEVICES**

- a. The Management Representative is responsible for ensuring that necessary monitoring and measurement activities are identified, and that the necessary monitoring and measuring devices are available to assure conformity of product and/or conformance of processes to quality and environmental requirements, objectives or targets.
- b. The Management Representative is also responsible for ensuring that the required monitoring and measuring can be carried out and is done in a manner that is consistent with the monitoring and measurement requirements.
  1. Measurement system evaluations are conducted for key families of monitoring and measuring devices.



## *SECTION V*

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### **Measurement, Analysis and Improvement**

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#### **8.1 GENERAL**

- a. The Management Representative is responsible for ensuring that each department manager at Euclid Precision Grinding and EPG Metals defines, plans and implements monitoring, measurement and analysis activities that are necessary to assure conformity of the product and the integrated management system and to achieve improvement. Euclid Precision Grinding and EPG Metals plans and implements monitoring, measurement, analysis and improvement.
- b. Euclid Precision Grinding and EPG Metals periodically evaluates compliance with relevant environmental legislation and regulations according to **Environmental Planning MSP 7.1-2**.

#### **8.2 MONITORING AND MEASUREMENT**

##### **8.2.1 Customer Satisfaction (“Perception”)**

Customer Service is responsible for ensuring that customer communication is maintained and that customer satisfaction data is collected, analyzed and used.

##### **8.2.2 Internal Quality Audits**

- a. Euclid Precision Grinding and EPG Metals plans and conducts internal quality audits at planned intervals for the following purposes:
  - 1. To verify whether quality and environmental activities and related results comply with planned arrangements, ISO 9001, ISO 14001, integrated management system requirements established by Euclid Precision Grinding and EPG Metals and relevant environmental legislation and regulations.
  - 2. To determine the overall effectiveness of the integrated management system as implemented and maintained.
  - 3. To provide information on the results of audits to management for review.



### **8.2.3 Monitoring and Measurement of Processes**

- a. Monitoring and where applicable, measurement activities are performed on:
  1. Processes necessary to meet customer requirements.
  2. Key characteristics of processes that can have a significant impact on the environment.
  3. Processes necessary to track performance and conformance with quality and environmental objectives and targets.
  4. Additional processes where the potential benefit is identified.
- b. The responsibility to identify and apply suitable methods for monitoring and measurement of processes is assumed by department leaders.

### **8.2.4 Monitoring and Measurement of Product, where applicable**

Euclid Precision Grinding and EPG Metals establishes and maintains documented procedures, work instructions, and/or quality plans that define the required monitoring and measurement activities and related records used to verify that product characteristics and requirements are met prior to product distribution, processing, or use.

## **8.3 NONCONFORMANCE CONTROL**

### **8.3.1 Control of Product Nonconformance**

- a. The Management Representative is responsible for implementing and maintaining **Control of Nonconforming Product**.
- b. The Management Representative is also responsible for compiling data from the Non-Conforming reports.

### **8.3.3 Control of Emergency Situations**

- a. The Management Representative is responsible for ensuring that Procedures and practices are established for preventing and responding to accidents and emergency situations where there may be a significant impact on the environment, and for preventing and mitigating the environmental impacts associated with them. **Emergency Preparedness and Response** and related documents address the following:



1. Identification of potential and actual accidents and emergency situations.
2. Proper response to emergencies and prevention or mitigation of serious environmental impacts.
3. Provisions for periodic reviews and revisions of the procedures. Such reviews are always initiated after the occurrence of such events.
4. Periodic drills to test the effectiveness of **Emergency Preparedness and Response**.

#### **8.4 ANALYSIS OF DATA**

1. Each employee is responsible for ensuring that collection and analysis of data occur in their specific department. The data collected determines, in part, the suitability and effectiveness of the integrated management system, identifies areas for improvement and demonstrates conformance with objectives and targets performance improvement projects.

#### **8.5 IMPROVEMENT**

##### **8.5.1 Continual Improvement**

- a. It is the overall responsibility of the management at Euclid Precision Grinding and EPG Metals to improve continually the effectiveness of the integrated management system according to **Measurement, Analysis and Improvement**. Each employee is responsible for the continual improvement of the integrated management system in his or her respective areas. Effectiveness of continual improvement activity is assessed during the Management Review Process.
- b. Continual improvement of the integrated management system at Euclid Precision Grinding and EPG Metals is facilitated through the use of:
  1. Quality and Environmental Policy - Section 5.3
  2. Quality and Environmental Objectives and Targets - Section 5.4.1 and Section 7.1
  3. Audit Results - Section 8.2.2
  4. Analysis of Data - Section 8.4
  5. Corrective Action - Section 8.5.2
  6. Preventive Action - Section 8.5.3
  7. Management Review - Section 5.6.



### **8.5.2 Corrective Action**

Corrective action at Euclid Precision Grinding and EPG Metals is directed at revising the company's integrated management system, policies, procedures and work instructions in order to eliminate the root cause(s) of quality and environmental problems and nonconformities and prevent their recurrence.

### **8.5.3 Preventive Action**

Preventive action is directed at improving Euclid Precision Grinding and EPG Metals's systems, procedures and policies. **Preventive Action** is used in the following situations:

1. to expose potential nonconformities found during either internal or external (customer) audits;
2. to revise the systems, work processes, procedures or work instructions to improve the quality or environmental performance of a process, product or service; and
3. to resolve potential problems found during the Management Review Process.



## *SECTION VI*

### **Appendix A: IMS Cross Reference**

<b>SECTION / ISO 9001:2008</b>	<b>RELATED ISO 14001:2004</b>	<b>TITLE</b>	<b>REVISION</b>
<b><u>CLAUSE</u></b>	<b><u>CLAUSE(S)</u></b>		
1.1	1	General	I
1.2	1	Scope	I
4.1	4.1	General Requirements	I
4.1	4.1.1, 4.4.4	Process Maps	I
4.2	4.4.5, 4.4.6, 4.5.4 * General	Documentation Requirements  * IMS Manual * Control of Documents * Control of Records * Operational Control * System Documentation	I
--	4.3.1	Environmental Aspects	I
--	4.3.2	Environmental and Other Requirements	I
5.1	--	Management Commitment	I
5.2	--	Customer Focus	I
5.3	4.2	Quality and Environmental Policy	I
5.4	4.3, 4.3.3, 4.3.4, 4.4, 4.4.3	Planning  * 5.4.1 Quality and Environmental Objectives, Targets, and Programs * Implementation and Operations * Communications	I
--	4.4.6, 4.4.7	Operational Control, Emergency Preparedness and Response	I



<b>SECTION /</b> <b>ISO 9001:2008</b>	<b>RELATED</b> <b>ISO 14001:2004</b>		
<b><u>CLAUSE</u></b>	<b><u>CLAUSE(S)</u></b>	<b><u>TITLE</u></b>	<b><u>REVISION</u></b>
5.5	4.4.1, 4.4.3	Roles, Resources, Responsibility, Authority and Communication * 5.5.1 Responsibility and Authority * 5.5.2 Management Representative * 5.5.3 Internal Communication	I
5.6	4.6	Management Review * 5.6.1 General * 5.6.2 Review Input * 5.6.3 Review Output	I
6.1	--	Provision of Resources	I
6.2	4.4.2	Human Resources * 6.2.1 General * 6.2.2 Competence, Awareness and Training	I
6.3	4.4.1	Infrastructure	I
6.4	--	Work Environment	I
7.1	4.4.6	Planning of Product Realization	I
7.2	4.3.2, 4.4.6	Customer-related Processes * 7.2.1 Determination of Requirements Related to the Product * 7.2.2 Review of Requirements Related to the Product * 7.2.3 Customer Communication	I



<b>SECTION / ISO 9001:2008</b>	<b>RELATED ISO 14001:2004</b>	<b>TITLE</b>	<b>REVISION</b>
<b><u>CLAUSE</u></b>	<b><u>CLAUSE(S)</u></b>		
7.4	4.4.6	Purchasing * 7.4.1 Purchasing Process * 7.4.2 Purchasing Information * 7.4.3 Verification of Purchased Product	I
7.5 Draft	4.4.6	Production and Service Provision * 7.5.1 Control of Production and Service Provision * 7.5.2 Validation of Processes for Production and Service Provision * 7.5.3 Identification and Traceability * 7.5.4 Customer Property * 7.5.5 Preservation of Product	
7.6	4.5.1	Control of Monitoring and Measuring Devices	I
8.1	4.5.1	General	I
8.2	4.5, 4.5.1, 4.5.2, 4.5.4, 4.5.5	Monitoring and Measurement * 8.2.1 Customer Satisfaction * 8.2.2 Internal Audit * 8.2.3 Monitoring and Measurement of Processes * 8.2.4 Monitoring and Measurement of Product	I
8.3	4.5.3	Nonconformance Control * 8.3.1 Control of Product Nonconformance * 8.3.2 Control of System-Level Nonconformance * 8.3.3 Control of Emergency Situations	I
8.4	4.5.1	Analysis of Data	I
8.5	4.5.2	Improvement * 8.5.1 Continual Improvement * 8.5.2 Corrective Action * 8.5.3 Preventive Action	I

REVISION DATE: 16 August 2010



## *SECTION VI*

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### **Appendix B: List of Quality System Procedures**

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#### Section 4

- MSP 4.2-2 Document Control
- MSP 4.2-3 Management System Record Maintenance

#### Section 5

- MSP 5.5-1 Internal Communications
- MSP 5.5-2 External Communications
- MSP 5.6-1 Management Review

#### Section 6

- MSP 6.2-1 Training Assessment, Delivery and Evaluation
- MSP 6.3-1 Preventive Maintenance
- MSP 6.4-1 Pollution Prevention And Waste Minimization

#### Section 7

- MSP 7.1-2 Environmental Planning
- MSP 7.2-1 Order / Contract Review
- MSP 7.4-1 Supplier Selection and Assessment
- MSP 7.4-2 Purchase Order Generation and Issue
- MSP 7.4-3 Receiving Inspection and Testing
- MSP 7.5-1 Issue and Control of Process Monitoring and Operating Instructions
- MSP 7.5-3 Product Identification and Traceability
- MSP 7.5-4 Verification and Control of Customer Property
- MSP 7.5-5 Product Preservation Control
- MSP 7.6-1 Control of Monitoring and Measuring Devices

#### Section 8

- MSP 8.1-1 Measurement, Analysis and Improvement
- MSP 8.2-1 Internal Audits
- MSP 8.2-2 In-Process Inspection and Testing
- MSP 8.2-3 Final Inspection and Testing
- MSP 8.3-1 Control of Nonconforming Product
- MSP 8.3-3 Emergency Preparedness and Response
- MSP 8.5-1 Corrective Action
- MSP 8.5-3 Preventive Action