



This quality management manual gives a general overview of the Quality Management System at AGRU America, Inc.

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It may not be misused.

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## Quality Health Safety & Environmental Management Manual – Agru America, Inc.

### 1. Scope

- 1.1. This manual defines the quality, health, safety and environmental management system (QHSE) for the production and supply of HDPE pipe and fittings by Agru America, Inc., exclusive of transition fittings produced at Agru America's Andrews 2 production facility. It is organized around the requirements of ISO 9001:2015, *Quality Management Systems – Requirements*, ISO 14001:2015, *Environmental Management Systems – Requirements with guidance for use*, and ISO 45001:2018, *Occupational health and safety management systems – Requirements with guidance for use*. The purpose of this QHSE is to provide structure to the various policies, processes and work instructions that have been instituted at Agru America, Inc. in an effort to consistently provide products and services that meet or exceed customer expectations and applicable statutory and regulatory requirements while preserving the environment in which we operate. The overall goal is enhanced customer satisfaction through the consistent and effective implementation of these policies, processes and work instructions to assure conformity with customer needs and applicable statutory and regulatory requirements.

#### THE FOLLOWING ITEMS ARE EXCLUDED FROM THE QUALITY MANUAL

DESIGN AND DEVELOPMENT	THESE ARE CARRIED OUT IN OUR GLOBAL HEADQUARTERS IN AUSTRIA.
CUSTOMER SUPPLIED PRODUCT	WE DO NOT USE ANY CUSTOMER SUPPLIED PRODUCT.
POST DELIVERY ACTIVITY	WE DO NOT OFFER ANY POST DELIVERY SERVICES.

- 1.2. Agru America's HDPE pipe and fitting business is organized around essentially two specific sites within the overall corporation which are included within the scope of this QHSE. These are:
- 1.2.1. HDPE pipe production – Charleston Production Facility (Registered August 9<sup>th</sup> 2017)
  - 1.2.2. HDPE fittings production – Andrews 2 Production Facility (Registered August 9<sup>th</sup> 2017)
- 1.3. Agru America produces and supplies other products at these and other facilities which are not currently included within the scope of this QHSE.
- 1.4. Parenthetical references as shown in this QHSE Manual are references to specific Agru America QHSE process instructions, work instructions or other documentation that pertains to the subject area in consideration.

### 2. Normative References

- 2.1. ISO 9001: 2015, *Quality Management Systems – Requirements*
- 2.2. ISO 14001:2015 *Environmental Management Systems – Requirements with guidance for use*
- 2.3. ISO 45001:2018 *Occupational health and safety management systems – Requirements with guidance for use*

### 3. Terms and Definitions

- 3.1. Plan, Do, Check, Act – a process approach that enables an organization to plan its processes and interactions and verify resourcing to achieve a specific purpose or activity.
- 3.2. QHSE – Quality, Health, Safety and Environmental Management System
- 3.3. Functional Manager – The department head or person with the authority to make decisions for a particular group within the organization, i.e. Purchasing Manager for Purchasing department or Plant Manager for an individual manufacturing plant.

### 4. Context of the Organization

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- 4.1. Internal and external issues that are important to fulfillment of the requirements of the Agru America QHSE and successful attainment of defined quality objectives are communicated to Agru America by interested parties. (QMPI-EXM-003-4.1) Interested parties include:
  - 4.1.1. Owners
  - 4.1.2. Employees
  - 4.1.3. Raw material suppliers
  - 4.1.4. Customers
  - 4.1.5. Local or federal authorities and regulatory agencies
- 4.2. Interested parties are identified because the needs and expectations of the interested parties have an influence on the quality and environmental management system.
- 4.3. Agru America recognizes the importance of the needs and expectations of the interested parties in defining its scope of activity and the scope of this QHSE.
- 4.4. The Agru America QHSE is predicated on a philosophy of *Plan, Do, Check, Act* and utilizes a system of corporate and site specific processes and work instructions to achieve defined quality and environmental objectives.

## 5. Leadership

### 5.1. Leadership and Commitment

- 5.1.1. Management at Agru America is committed to the following:
  - 5.1.1.1. Accountability for effectiveness of the QHSE.
  - 5.1.1.2. Establishment of the quality, health, safety and environmental policies and QHSE objectives.
  - 5.1.1.3. Integration of the QHSE processes and work instructions in support of Agru America's overall business processes.
  - 5.1.1.4. Use of the process approach and risk-based thinking.
  - 5.1.1.5. Insuring that necessary resources for the effective function of the QHSE are available.
  - 5.1.1.6. Communicating the importance of the Agru America QHSE and the respective quality, health, safety and environmental policy throughout the organization.
  - 5.1.1.7. Insuring that the QHSE achieve its intended results.
  - 5.1.1.8. Engaging, directing and supporting site personnel to contribute to the effectiveness of the QHSE.
  - 5.1.1.9. Promoting an attitude that supports continuous improvement throughout the organization.
  - 5.1.1.10. Supporting departmental or functional supervisory roles to demonstrate their leadership as it pertains to their role in the effective implementation of the Agru America QHSE.
- 5.1.2. Customer Focus - Management and leadership at Agru America shall:
  - 5.1.2.1. Insure that customer and applicable regulatory, statutory and/or environmental requirements are determined, understood and consistently met.
  - 5.1.2.2. Insure that risks and opportunities that can affect conformity of HDPE pipe and fitting products and associated services are determined and addressed.
  - 5.1.2.3. Maintain a focus on enhancing customer satisfaction.

### 5.2. Policy

- 5.2.1. The quality policy of Agru America is as follows. Agru America, Inc. is committed to the production and supply of HDPE plastic pipe and fittings that meet customer requirements and industry standards. Our goal is to continually improve our products, services and our quality management system by establishing and reviewing quality objectives on a consistent basis. This policy will be communicated and understood throughout Agru America, Inc. and reviewed for continuing suitability.
- 5.2.2. The environmental policy of Agru America is a follows. Agru America is committed to the operation of its facilities in an environmentally responsible manner and in doing so meeting or exceeding all applicable environmental requirements and/or obligations. Our goal is to continually improve our ability

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to operate within the communities where we are located with minimal impact to the environment, our neighbors, prevailing ecosystems and society at large. This policy will be communicated and understood throughout Agru America, Inc. and reviewed for continuing suitability.

- 5.2.3. The health and safety policy of Agru America is as follows. Agru America, Inc. is committed to protecting the safety and health of our employees and those affected by our actions. We aspire towards continuous improvement in health and safety. The goal of our health and safety management policy is to ensure accident-free, healthy working conditions for our employees as well as safe products for our customers. This policy will be communicated and understood throughout Agru America, Inc. and reviewed for continuing suitability.
- 5.2.4. Management and supervisory staff at Agru America communicate the quality, health, safety and environmental policies in the following ways:
- 5.2.4.1. The QHSE policies shall be posted in a public manner in functional departments throughout the organization.
  - 5.2.4.2. The QHSE policies shall be reviewed with all personnel as an integral part of their QHSE training protocol.
  - 5.2.4.3. The QHSE policies shall be continually reviewed by Agru America executive management and quality personnel to insure its applicability and effectiveness as an integral part of the management review process. (QMPI-EXM-001-9.3)

### 5.3. Roles, Responsibilities and Authorities

- 5.3.1. Organizational roles, responsibilities and authorities are defined within the organizational chart for the Agru America, Inc.
- 5.3.2. Position descriptions for functional roles indicated within the organizational chart provide further definition of roles, responsibilities and authorities.
- 5.3.3. The organizational charts and position descriptions are maintained in the Agru America, Inc. organizational handbook. (QM-ORG)
- 5.3.4. All positions descriptions within the Agru America organizational handbook shall:
- 5.3.4.1. Clearly define responsibilities and accountabilities pertaining to the Agru America QHSE, customer focus and continuous improvement.
  - 5.3.4.2. Include provisions for training on the Agru America QHSE, customer focus and continuous improvement.

## 6. Planning

- 6.1. Agru America recognizes that it operates in a dynamic market environment and that business risks exist that may influence its ability to meet customer needs and/or environmental requirements or obligations. To this end, Agru America utilizes a structured process to analyze recognized business risks and their potential impact on the organization on an ongoing basis. (QMPI-OPN-001-6.1) Business risks are reviewed as an integral part of the management review process (QMPI-EMX-001-9.3)
- 6.2. Agru America is committed to customer satisfaction and environmental responsibility through a philosophy of planned and coordinated business activities. In this way, customer satisfaction is achieved on a consistent basis and a culture of continuous improvement is established while preserving the environment in which we operate.
- 6.3. Quality objectives for the organization as a whole and for each functional area included within the scope of this QHSE shall be established and reviewed on a regular basis. (QMPI-QA-002-6.2). Organizational and functional quality objectives are reviewed as an integral part of the management review process. (QMPI-EXM-001-9.3).

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- 6.4. Environmental objectives for the organization as a whole and for each functional area included within the scope of this QHSE shall be established and reviewed on a regular basis (QMPI-EMS-002-6.2)  
Organizational and functional environmental objectives are reviewed as an integral part of the management review process. (QMPI-EXM-001-9.3)
- 6.5. Health and safety objectives for the organization as a whole and for each functional area included within the scope of this QHSE shall be established and reviewed on a regular basis (QMPI-EXM-005-5.2).  
Organizational and functional health and safety objectives are reviewed as an integral part of the management review process. (QMPI-EXM-001-9.3).
- 6.6. Customer needs, regulatory or statutory requirements and Agru America resource needs shall be reviewed and compliance capability confirmed using the sales order acknowledgement process instruction. (QMPI-SM-001-8.2.2)
- 6.7. Process control or compliance to customer needs during the manufacturing process shall be managed using Agru America's production planning process instruction. (QMPI-OPN-001-8.1)
- 6.8. Compliance to environmental needs and/or obligations shall be managed using Agru America's environmental planning process instruction. (QMPI-EMS-001-6.1)
- 6.9. Agru America recognizes that customer needs, product requirements, health, safety and environmental obligations do evolve and, as such, changes to the Agru America QHSE may be required. Provisions for changes to the QHSE are detailed in Agru America's document control process instruction. (QMPI-QA-001-7.5).

## 7. Support

- 7.1. Agru America is committed to providing sufficient resources to meet customer needs on a consistent basis and provide for the establishment, implementation, maintenance and continual improvement of its QHSE.
- 7.2. Agru America consistently reviews the following as a function of its management review process to insure the effectiveness of its QHSE. (QMPI-EXM-001-9.3)
  - 7.2.1. Internal resources to determine process capability and existing constraints. Where appropriate, resources from external providers will be identified.
  - 7.2.2. Personnel necessary for the effective implementation of this QHSE.
  - 7.2.3. Infrastructure needs including buildings and associated utilities, equipment (hardware and software), transportation resources and various information and communications technologies.
  - 7.2.4. Agru America provides for state-of-the-art facilities that are capable of the production and/or management of the organization activities in a safe and environmentally responsible manner.
- 7.3. To insure the effectiveness of the QHSE, Agru America requires that monitoring and measurement equipment used in its processes shall be: (QMPI-QA-004-7.1.5)
  - 7.3.1. Suitable to the type of measurement and monitoring required.
  - 7.3.2. Maintained to insure their accuracy and reliability.
  - 7.3.3. Clearly identified and catalogued.
  - 7.3.4. Calibrated or verified at established intervals, or prior to use, against measurement standards traceable to international or national measurement standards.

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- 7.3.5. Securely stored to prevent inadvertent adjustment, damage or deterioration that would invalidate the calibration status and any associated measurement result.
- 7.3.6. When a measurement device is found to be unfit for its intended purpose, actions shall be taken to determine the validity of measurements previously made using that specific device. Where determined appropriate, Agru America may initiate its process for control of non-conforming product. (QMPI-QA-05-8.7)
- 7.4. To achieve conformity of its products and services, Agru America is committed to maintaining organization knowledge necessary to consistently meet customer needs, regulatory or statutory requirements and environmental obligations. Organizational knowledge is vested in the training, experience and expertise of its employees.
- 7.5. Agru America maintains a training program to insure its employees have the necessary competence to perform the work under its control that affects the performance and effectiveness of its QHSE. Where appropriate, training (either internal or external) shall be initiated to insure that competence and records of the training shall be retained. (QMPI-HR-001-7.2)
- 7.6. All employees within the scope of the Agru America QHSE receive training on the following aspects of the QHSE.
- 7.6.1.1. The quality, health, safety and environmental policy of Agru America, Inc.
  - 7.6.1.2. Corporate and departmental QHSE objectives.
  - 7.6.1.3. Their individual contribution to the effectiveness of the QHSE.
  - 7.6.1.4. Implications of non-conformance to the requirements of the Agru America QHSE.
- 7.7. Agru America maintains an open work environment where timely and accurate communication is fundamental to the success of the QHSE. The various policies, work processes and work instructions of the Agru America QHSE provide direction on what will be communicated, when QHSE specified communication will occur, who communicates what and to whom, and how best to communicate the information being conveyed. (QMPI-EXM-004-7.4)
- 7.8. Agru America recognizes that documentation pertaining to its QHSE; its structure, implementation, and maintenance is of critical importance to the effectiveness of the QHSE. To this end, Agru America has established a document control process instruction that addresses the creation, revision, and control of QHSE documentation and records. (QMPI-QA-001-7.5)

## 8. Operation

### 8.1. Operational Planning and Control

- 8.1.1. Agru America maintains state-of-the-art facilities for the production of HDPE pipe and fittings and has established documented work processes and work instructions that:
- 8.1.1.1. Determine the requirements for the products to be produced and supplied to its customers,
  - 8.1.1.2. Establish criteria for production processes and appropriate acceptance criteria,
  - 8.1.1.3. Recognize the health, safety, and environmental parameters relevant to a specific Agru America site and its operations.
  - 8.1.1.4. Identify the resources needed to achieve conformity to the product, service and/or health, safety, and environmental requirements.
  - 8.1.1.5. Establish process controls to achieve conformance with established product requirements and prevailing health, safety, and environmental guidelines / requirements.
  - 8.1.1.6. Provide for the creation, maintenance and retention of documentation necessary to demonstrate that the processes and work instruction have been performed as planned and that the products produced conform to the requirements identified.

### 8.2. Requirements for Products and Services

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- 8.2.1. Specific requirements for Agru America's products and services are established on the basis of customer communication, the prevailing industry standard and other statutory or regulatory requirements as may be identified in the planning process.
- 8.2.2. Agru America produces HDPE pipe and fittings in accordance with ISO, CEN or ASTM industry standards or other regional standards as may be required by our customers.
- 8.2.3. The requirements for products and services are reviewed as an integral part of Agru America's sales order acknowledgement process instruction. (QMPI-SM-001-8.2.2)
- 8.2.4. Documentation pertaining to the sales order acknowledgement work process is retained in accordance with Agru America's document retention policy. (QMPI-QA-003-7.5)
- 8.2.5. Changes in customer needs or changes in regulatory requirements are documented as an integral part of the sales order acknowledgement work process.
- 8.3. Design and Development
- 8.3.1. Design and development at Agru America is limited to molding or extrusion production trials. Design and development of a more comprehensive nature is administered by Agru Austria.
- 8.4. Control of Externally Provided Products and Services
- 8.4.1. Agru America utilizes a structured process for the purchase of externally provided products and services. (QMPI-PUR-001-8.4)
- 8.4.2. Where appropriate:
- 8.4.2.1. Purchase specifications exist that define the requirements for products and services to be supplied to Agru America by external providers.
- 8.4.2.2. Vendors are qualified by Agru America using a structure process to determine their supply capability in terms of product performance and service capacity. (QMPI-PUR-002-8.4)
- 8.4.2.3. Externally provided products and services are purchased from vendors that have been qualified and are currently on Agru America's approved vendor list.
- 8.4.3. Externally provided products or services are subject to incoming receipt inspection. Those products or services not meeting established purchase specifications or established product requirements are subject to Agru America's control of nonconforming product process instruction. (QMPI-QA-005-8.7)
- 8.5. Production
- 8.5.1. Production planning and control work instructions are utilized at Agru America's pipe and fitting production facilities to produce products under controlled conditions. These work instructions provide for:
- 8.5.1.1. Availability of documented information that defines the characteristics of the product to be produced and the results to be achieved.
- 8.5.1.2. Availability of appropriate monitoring and measurement equipment and its use at various stages of production to verify that products requirements are met.
- 8.5.1.3. Use of appropriate production equipment.
- 8.5.1.4. Utilization of personnel properly trained or qualified in the use of the production equipment.
- 8.5.1.5. Validation of the production process to achieve planned results.
- 8.5.1.6. Implementation of actions to prevent human error.
- 8.5.1.7. Implementation of release, delivery and post-delivery activities as may be required by the customer.
- 8.5.2. Identification and Traceability
- 8.5.2.1. Agru America has incorporated the means for product identification and traceability in the design of its products.

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8.5.2.2. Work instructions exist at Agru America's production facilities that insure products are identified by means of stamping, printing, labelling or other suitable means that insure traceability of it products.

### 8.5.3. Property Belonging to Customers or External Providers

8.5.3.1. Agru America does not utilize property belonging to customers or external providers.

### 8.5.4. Preservation

8.5.4.1. Work instructions for packaging, storage and shipment of finished products have been established at the Agru America production facilities.

8.5.4.2. Provisions for special customer requests regarding packaging, storage or shipment are addressed in the Agru America sales order acknowledgement process instruction. (QMPI-SM-001-8.2.2)

### 8.5.5. Post-Delivery Activities

8.5.5.1. Post-delivery activities shall be defined in Agru America's sales order acknowledgement work process.

8.5.5.2. Work processes and work instructions shall be defined for any post-delivery activities required by the customer.

### 8.5.6. Control of Changes

8.5.6.1. Agru America has established work instructions at its production facilities that provide for changes in the production processes where required to maintain conformity to customer requirements.

8.5.6.2. Procedures exist that provide for documentation of any proposed changes in the production process and verification that the change implemented results in production that meets the established requirements for the product.

## 8.6. Release of Product

8.6.1. Agru America has instituted process instructions and work instructions at its production facilities that provide for release of the product upon confirmation that established product requirements have been achieved.

8.6.2. Release of product is an integral part of Agru America's production planning process instruction and related work instructions. (QMPI-OPN-001-8.1)

8.6.3. Where required, release of product as defined within the production order shall not occur until any planned arrangements for customer and/or third party inspection and testing have been performed and requirements met satisfactorily.

## 8.7. Control of Nonconforming Products

8.7.1. Agru America has established and implemented a process instruction for the control of nonconforming products at its production facilities. (QMPI-QA-005-8.7)

## 8.8. Emergency Preparedness and Response

8.8.1. Agru America has established and implemented a process instruction for emergency preparedness and response. (QMPI-EMS-003-8.2)

## 9. Performance Evaluation

9.1. Agru America process instructions describe how the monitoring and measurement of processes included in the QHSE are made with regard to product conformity and/or health, safety, and environmental compliance.

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- 9.2. Monitoring, measurement and evaluation of the QHSE is accomplished through the use of QHSE objectives for each functional area within Agru America and for Agru America at a corporate level. (QMPI-QA-002-6.2, QMPI-EMS-001-6.2, QMPI-EXM-005-5.2)
- 9.3. Customer satisfaction is an integral part of Agru America's QHSE performance evaluation. Agru America has established work processes where data relating to customer feedback, complaints, product returns and claims are monitored and evaluated as a means for improvement of the QHSE and the product offering from Agru America. (QMPI-SM-002-9.1.2)
- 9.4. Analysis and evaluation of the QHSE is accomplished in the following ways.
- 9.4.1. Departmental and corporate QHSE objectives are updated, analyzed and evaluated on a monthly basis. (QMPI-QA-002-6.2, QMPI-EMS-001-6.2, QMPI-EXM-005-5.2)
- 9.4.2. Customer satisfaction measures are updated, analyzed and evaluated at planned intervals (QMPI-SM-002-9.1.2)
- 9.4.3. The effectiveness of Agru America's QHSE is reviewed and evaluated for further improvement during the management review process. (QMPI-EXM-001-9.3)
- 9.5. Internal Audit
- 9.5.1. The Agru America QHSE is continually assessed for effectiveness and improvement using its internal audit process instruction. (QMPI-QA-006-9.2)
- 9.5.2. The internal audit process instruction provides for:
- 9.5.2.1. A planned and coordinate approach to internal audit of all functional areas involved in administration of the Agru America QHSE.
- 9.5.2.2. Definition of audit criteria and scope for each audit.
- 9.5.2.3. Training and selection of auditors to insure objectivity and impartiality of the audit process.
- 9.5.2.4. Documentation of the audit process and audit results.
- 9.5.2.5. Communication of audit results to appropriate functional or departmental management
- 9.5.2.6. Where appropriate, the initiation and completion of corrective actions in a timely manner.
- 9.6. Management Review
- 9.6.1. Senior management at Agru America reviews the organization's QHSE at planned intervals to insure its continuing suitability, adequacy, effectiveness and alignment with the strategic direction of the organization. (QMPI-EXM-001-9.3)
- 9.6.2. Inputs and outputs of the management review process are defined within the management review process instruction. (QMPI-EXM-001-9.3)
- 9.6.3. Documentation pertaining to the management review process is considered a quality document and is retained in accordance with Agru America's document retention policy. (QMPI-QA-003-7.5)

**10. Improvement**

- 10.1. The work processes and work instructions of the Agru America QHSE are designed to facilitate an environment of continuous improvement by identifying opportunities for improved conformity of products, correction or prevention of undesired effects, and overall improvement in the performance and effectiveness of the QHSE.
- 10.2. Agru America's process instruction for control of nonconforming products (QMPI-QA-005-7.5) provides for:
- 10.2.1. Identification, reaction to and control of the nonconformity.

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- 10.2.2. Evaluation of the need for corrective action to eliminate causes of the nonconformity. (QMPI-QA-006)
- 10.2.3. Implementation of the corrective action.
- 10.2.4. Review of the effectiveness of the corrective action.
- 10.2.5. Evaluation of risks and opportunities determined during the planning process and, where necessary, revision or update.
- 10.2.6. When appropriate, revision or update of the QHSE. (QMPI-QA-001-7.5)
- 10.3. Documentation pertaining to control of nonconforming products and corrective actions shall be retained in accordance with Agru America's document retention policy. (QMPI-QA-003-8.7)
- 10.4. Agru America shall review the process instructions and work instructions established within its QHSE on a regular basis to insure their applicability, adequacy and effectiveness and the overall continuous improvement of the system. (QMPI-EXM-001-9.3)

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