1. **Introduction**

This manual establishes the foundation from which the Trans-Tech Sustainability programs are established and operated. The manual contains the following:

* Sustainability Policy
* Sustainability Programs
* Environmental Management System
* RBA Code of Conduct

**Purpose**

To comply through the establishment of a comprehensive framework for all environmental activities at the Trans-Tech facilities. That framework, the Trans-Tech Sustainability System Manual (SSM) has three main objectives:

 1. Regulatory compliance

 2. A system to drive environmental performance / continuous improvement

 3. Prevention of pollution

**System Structure**

All Trans-Tech programs are developed and implemented in support of and in conformance to the **RFC-SOP-0001 RF Ceramics Quality Manual** and this **RFC-SOP-0016 Trans-Tech Sustainability System Manual**.

**Scope**

The Trans-Tech SSM applies to the 5520 Adamstown Road, Adamstown, MD & 4613 B Wedgewood Blvd, Frederick, MD, manufacturing and related business activities excluding design and development. A separate Trans-Tech Supply Chain Sustainability Operational Controls TT-SOP-0047 covers environmental considerations associated with new Trans-Tech compositions. Included under TT-SOP-0047 are materials qualification (ie: RoHS compliance) and related processes to materials declaration for environmental considerations. This Sustainability Systems Manual, its supporting systems and documentation are designed to conform to the ISO 14001-2015 standard.

**Responsible Business Alliance (RBA) Code of Conduct (Code).** Trans-Tech acknowledges the Code and its intents as part of our company policy. The Code establishes standards to ensure that working conditions are safe, that workers are treated with respect and dignity, and that business operations are environmentally responsible and conducted ethically. RBA Code of Conduct can be referenced on the website at <https://www.responsiblebusiness.org/code-of-conduct/>.

**Roles and Responsibilities**

Trans-Tech organizational and business leaders support the Sustainability Policy and its associated programs. Refer to the EMS portion of this document (sec. 4‐10) for roles and responsibilities associated with the EMS Sustainability programs are established and integrated throughout our business operations, in part, through a cross‐functional team known as the ***Sustainability Team***. The *Team* is comprised of members representing different areas throughout Trans-Tech with responsibilities in the Sustainability topics of Labor, Health & Safety, Environmental, Ethics, and Management. The *Team* works to develop and implement programs ensuring we uphold our Sustainability Policy commitments and requirements established in this manual, both within Trans-Tech, and in our supply chain.

|  |  |
| --- | --- |
| EIT | * Meet on a regular basis
* Identify environmental program needs and address
* Establish metrics measuring output for improvements
* Establish clear targets/objectives for improvement
* Regularly report performance to targets / objectives (including management review)
* Maintain EMS documents in alignment with the identified "Context of the organization" as found in section 4.1, 4.2, 4.3 and ensure local EMS adds any additional elements required or applicable.
 |
| Emergency Response | The EHS Coordinator is responsible for compliance with site safety & emergency response. |
| Employee | Employees are responsible for adherence to the Trans-Tech EMS and all applicable procedures, work instructions, etc. Employees are responsible for behaving in an environmentally responsible manner at all times while performing work at or for Trans-Tech. |
| EMR | Trans-Tech Senior Management designates an on-site manager as the EMR for the Trans-Tech EMS. The EMR for the Trans-Tech EMS is the EHS Coordinator and ensures that requirements are established, implemented, and maintained in accordance with the requirements of the *Sustainability Systems Manual* and the ISO 14001 standard. |
| Human Resources | Human Resources is responsible for employee training & archives of training documents. Human Resources provides assistance as required with the EMR &EHS Coordinator as it may pertain to Environmental Training. |
| Management (Managers & Supervisory Staff) | All levels of management are responsible for implementing those portions of the Trans-Tech EMS and their related procedures, work instructions, etc., that apply to their respective areas of responsibility. Management is responsible for compliance with the Trans-Tech EMS requirements at all times throughout their areas of responsibility. Management is also responsible for ensuring their respective employees receive appropriate training as required by the Trans-Tech EMS. |
| Specific Departments | Requirements for specific departments are outlined in the Trans-Tech EMS and its supporting documentation. Identified departments are responsible for conformance to these requirements as they apply. |
| Sustainability | Operating according to business practices that meet the needs of the present without compromising the ability of future generations to meet their own needs. At a minimum, this encompasses the areas of Environmental, Labor, Health & Safety, Ethics, and Management Systems. |
| Sustainability Team | The team works to develop and implement programs ensuring we uphold our Sustainability Policy commitments and requirements established in this manual, both with Trans-Tech, and in our supply chain. |
| Technical Resources | Environmental compliance & improvements at times require technical resources including but not limited to, Engineering, Information Technology, Professional Consultants, Original Equipment Manufacturers, etc.. These types of resources will be made available as deemed necessary by the EMR, EIT & Trans-Tech Top Management to ensure regulatory compliance. |
| Top Management | The General Manager for Trans-Tech is the designated Top Management for the site with respect to the Trans-Tech EMS and its requirements. The General Manager is responsible for keeping and maintaining a work environment where the Trans-Tech EMS and its supporting documentation can operate and be successful. Management is responsible for support the organizational structure of the Environmental Compliance associates in the company |

1. **Sustainability Policy**

**Sustainability Policy**

**Trans-Tech** is committed to operating under Sustainable Business practices that meet today’s needs without compromising the ability of future generations to meet their own. We employ a management system approach to:

* Comply with applicable laws, regulations, and requirements
* Prevent pollution, conserve resources, and minimize waste
* Cultivate safe, healthy, and productive work environments
* Operate with integrity, honesty, and accountability
* Foster continuous improvement
* Promote Sustainability throughout our supply chain
	1. **Internal Communication**

The following methods are utilized for communication of the Sustainability Policy to Trans-Tech employees:

* Posters
* Employee badges
* Sustainability Systems Manual
* Established training programs
	1. **Policy Summary Statement**

The following is an approved Sustainability Policy summary statement. The summary statement is not intended to substitute for the full policy, but rather to enhance general communication and awareness of it. The summary statement may be used on employee badges and other general awareness communication where a shorter statement is needed or preferred.

* Comply with applicable laws, regulations and requirements
* Prevent pollution, conserve resources and minimize waste
* Cultivate safe, healthy and productive work environments
* Operate with integrity, honesty and accountability
* Forster continuous improvement
* Promote Sustainability throughout supply chain
1. **Sustainability Systems**

In addition to our ISO 14001 certified Environmental Management System (EMS) programs (refer to Sec. 4), Trans-Tech keeps and maintains programs and policies covering the subjects of Environmental, Health & Safety, Ethics, Labor, and Management Systems in alignment with the *Responsible* *Business* *Alliance* *Code* *of* *Conduct* *(Code)*.

**Note:** Program elements developed for alignment to the *Code* shall NOT be considered part of the auditable programs under our existing ISO 14001 certification.

Trans-Tech is committed to operating in full compliance with the laws, rules, and regulations of all the countries in which it operates. It recognizes the Responsible Business Alliance (RBA) *Code* *of* *Conduct* *(Code)* and actively pursues conformance to it and its standards in accordance with the management systems as identified in this manual. We further recognize the *Code* as a total supply chain initiative.

The *Code*, in its entirety, is provided in RBA Code of Conduct. Trans-Tech’ programs are referenced within each sub‐section below. The *Code* can also be referenced on the RBA website at: http://www.responsiblebusiness.org/standards/code‐of‐conduct/. Translations into other languages can be found there.

* 1. **Labor**

Labor programs at Trans-Tech have been developed in conformance to the [***RBA* *Code* *of* *Conduct***](https://www.responsiblebusiness.org/code-of-conduct/) to uphold the human rights of workers and to ensure workers are treated with dignity and respect. Labor programs are managed primarily by the Human Resources department. The Human Resources department is dedicated to providing high‐quality benefits, compensation, training, staffing, and general HR support. Their mission is to develop a proactive partnering with business leaders to create and deliver solutions resulting in a culture that continually strives to exceed employee, and customer expectations.

* 1. **Health & Safety**

Health & Safety programs at Trans-Tech have been developed in conformance to the [***RBA* *Code* *of* *Conduct***](https://www.responsiblebusiness.org/code-of-conduct/) to minimize the incidence of work‐related injury and illness and to cultivate a safe and healthy work environment. Health & Safety programs are managed primarily by the Environmental Health and Safety Coordinator. The Environmental Health & Safety Coordinator is committed to developing and implementing programs promoting and contributing to worker safety and wellness and to improving safe working conditions throughout the company.

Since it will no longer be appropriate to have one representative driving the Health and Safety program on behalf of the rest of the organization, Trans-Techs’ Senior Management is now accountable for Health and Safety program as well as integrating the Health and Safety with Trans-Tech's business processes and strategies to ensure decisions are made with consideration for the Health and Safety at all levels.

* 1. **Environment**

Environmental programs at Trans-Tech have been developed in conformance to the [***RBA Code of Conduct***](https://www.responsiblebusiness.org/code-of-conduct/) to identify the environmental impacts and minimize adverse effects of our business operations on the community, environment, and natural resources while safeguarding the health and safety of the public. Environmental programs are managed primarily by the Environmental Improvement Team (EIT). The EIT is committed to developing and implementing programs to prevent pollution, conserve resources, and minimize waste.

* 1. **Ethics**

To meet social responsibilities and to achieve success in the marketplace, ethics programs at Trans-Tech have been developed in conformance to the [***RBA Code of Conduct***](https://www.responsiblebusiness.org/code-of-conduct/) upholding the highest standards of ethics in our business operations. Ethics programs are managed primarily by the Legal department. The Legal department strives to:

* Ensure that Trans-Tech complies with all applicable laws, regulations, and other legal requirements
* Foster a company‐wide environment of integrity, honesty, professionalism, respect, and accountability
* Provide comprehensive, proactive legal services through early, thorough involvement with our colleagues throughout the Trans-Tech organization
* Serve as a trusted business partner, identifying legal risks but also providing pragmatic advice and representation to help achieve business objectives
* Protect Trans-Tech intellectual property, proprietary information, and other key assets
	1. **Management Systems**

Management systems at Trans-Tech have been developed in conformance to the [***RBA Code of Conduct***](https://www.responsiblebusiness.org/code-of-conduct/) to a) maintain compliance with applicable laws, regulations, and customer requirements, b) maintain conformance with the RBA Code of Conduct, and c) identify and mitigate operational risks related to the RBA Code of Conduct. Management systems are developed and maintained by the Quality Systems department or by organizations associated with specific requirements such as the Environmental Health & Safety departments’ development of the Environmental Management System.

1. **Context of the Organization/Environmental Management System (EMS)**

The Trans-Tech EMS has been developed according to the ISO 14001-2015 system model. The system uses the Plan, Do, Check, Act (PDCA) methodology as an iterative process that enables to the organization to establish, implement, and maintain the environmental (Sustainability) policy and to continually improve the EMS in order to enhance environmental performance.

*(Reference ISO Clause Section of the Standard)*

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* 1. **Understanding the organization and its context**

Through the implementation and operation of this EMS, Trans-Tech intends to achieve the following items herein referred to as “intended outcomes.”

Intended Outcomes

* Enhancement of environmental performance
* Fulfilment of compliance obligations
* Achievement of environmental objectives
* Fulfilment of customer obligations (environmental related)

*Note:* *Trans-Tech* *also* *has* *established* *in* *this* *manual,* *intended* *outcomes* *outside* *the* *direct* *scope* *of* *the* *EMS* *including* *conformance* *to* *the* *RBA* *Code* *of* *Conduct* *and* *fulfilment* *of* *customer* *obligations* *associated* *with* *Sustainability* */* *Social* *Responsibility.*

Herein are the primary “issues” that affect or can affect (either positively or negatively) Trans-Tech ability to achieve the above referenced intended outcomes for the EMS. “Issues,” in this context, are considered important topics, problems for debate and discussion, or changing circumstances that affect Trans-Techs ability to achieve the intended outcomes. Such “issues” include:

Environmental Conditions

* Local air quality
* Local water quality (waterways)
* Local land use requirements / restrictions
* Existing property environmental contamination
* Natural resource availability / scarcity (fossil fuels, water, materials, etc…)
* Waste landfill availability and limitations
* Climate change:

*TT considered* ***climate change*** *with respect to local environment, business requirements, and sustainability during annual review per* ***RFC-SOP-0019 Business Continuity/Disaster Recovery Plan and TT-WI-0212 Environmental Aspects Objectives & Improvements****. TT’s scale with respect to changing or altering of climate is miniscule/minor. Electrical requirements for continuous kilns prevent limiting electrical usage at the plant.*

*The main focus of TT’s contribution to environmental stewardship shall be:*

* *Minimize non -kiln related electrical usage.*
* *Minimize water waste*
* *Keep VOC’s below state mandated thresholds*
* *Prevention of pollution occurring by surface runoff.*
* *Reclaim & recycling of processed and waste materials.*

External Conditions

* Legal/regulatory
* Financial/economic
* Supply chain
* Customer requirements
* Technological limitations
* Competitive circumstances
* Local community

Internal Conditions

* Trans-Tech Vision
* Trans-Tech organizational structure and management
* Manufacturing capacity and capabilities
* Trans-Tech products
* Strategic direction
* Internal resources (e.g.: financial, personnel, facilities, capabilities, etc…)

The 2015 standard establishes that Senior Management assumes direct responsibility for the Environmental Management System and demonstrate a broader understanding of the context in which the organization conducts business to ensure the EMS achieves its intended outcome.

Trans-Tech Environmental Policy requires a commitment to environmental protection, pollution prevention and specific commitments to Sustainability principles.

* 1. **Understanding the needs and expectations of interested parties**

Herein are the primary “interested parties” with respect to the Trans-Tech EMS. High level needs and expectations associated with the EMS are identified for each. These needs and expectations have been evaluated and associated compliance obligations have been identified for each. This broad‐level identification contributes to Trans-Techs understanding of its compliance obligations and is further detailed in section *6.1.3* *–* *Compliance* *Obligations*.

|  |  |  |
| --- | --- | --- |
| **Interested** **Party** **/** **Stakeholder** | **Needs** **&** **Expectations** | **Compliance** **Obligations** |
| Investor | Manage / minimize risks that can affect Trans-Tech ability to operate successfully and profitably | Risk assessment and risk reduction |
| Non‐governmental organizations (NGO’s) | Company commitment to environmental improvement and ethical operation, transparency, and information availability. | Availability and transparency of relevant environmental performance and information  |
| Neighbors and local community | Conscientious neighbor, clean environment, no odors, or excessive noise, responsive to complaints and neighborhood concerns | Local community comments and complaints process with process for responding. Effective operation of manufacturing facilities as an integral part of the larger community. Availability and transparency of relevant environmental performance and information  |
| Employees (including on‐site contractors) | Safe and healthy work environment, treated with dignity and respect | Health & Safety and employee wellness programs established to promote worker safety and well‐being. Appropriate engineering controls, administrative controls, and protective equipment as necessary to work safely. Emergency preparedness and response plans were effectively communicated and tested. Availability and transparency of relevant environmental performance and information. |
| Supply Chain | Ethical business practices, effective communication of Trans-Tech needs & expectations | Clearly communicated Supplier Sustainability (including environmental) requirements.  |
| Responsible Business Alliance | Member compliance obligations as specified by the organization | Company systems designed in conformance to the RBA Code of Conduct.  |
| Local, state, and federal government agencies | Compliance to applicable regulatory requirements and obligations | Applicable permits, licenses, and registrations. Filing of all required reporting obligations. A facility open to inspection upon request. Trans-Tech is also a member of the Local Emergency Planning Commission (LEPC) for Frederick County Maryland. |
| Customers | Control / minimization of impacts to the environment from business operations, transparency and information availability, parts meeting applicable environmental requirements (regulatory and customer specified) | Parts compliant to applicable regulatory requirements and customer specifications, manufacturing operations with environmental controls to minimize impacts, compliant manufacturing operations with continuous environmental improvement mechanisms. Availability and transparency of relevant environmental performance and information.  |
| Industry standards (eg: ISO 14001) | Conformance to the ISO 14001 standard | ISO 14001 audits to achieve and maintain certification. |
| Insurance Company | Compliance with environmental lawsRisk reductionTimely incident reporting | * Regulatory compliance and environmental laws
* Expectations for sustainable practices and products
* Workplace safety and environmental policies
* Requirements for environmentally materials and process
* Impact on local environment and community health
* Risk management and liability concerns
 |

In clause 4.2, Trans-Tech identify interested parties and their relevant requirements. The amendment emphasizes that these interested parties may have climate change-related requirements. By acknowledging this, ISO encourages organizations to consider climate-related expectations when designing and implementing their management system.

Use the table below to identify the SOP's, work instructions and associated documents applicable to each of the identified ISO 14001 clauses. These processes have been designed to ensure the Trans-Tech facilities contributes to those identified intended outcomes of the ***Sustainability System Manual*** (4.1).

* 1. **Determining the scope of the environmental management system**

In consideration of the business considerations as identified in sections 4.1 and 4.2, the scope of the Trans-Techs EMS (sections 4‐10 of this manual) is as follows:

Design and development, manufacturing, test, and supporting activities at the following Trans-Tech manufacturing location: Adamstown, MD



*Note:* *While* *additional* *programs* *exist* *to* *address* *and* *control* *environmental* *impacts* *at* *non‐* *manufacturing* *locations,* *these* *programs* *fall* *outside* *of* *the* *scope* *of* *these* *EMS* *requirements* *and* *are* *not* *subject* *to* *audit* *to* *the* *ISO* *14001* *standard.*

* 1. **Environmental management system**

The Trans-Tech EMS has been developed according to the ISO 14001:2015 system model. The system uses the Plan, Do, Check, Act (PDCA) methodology as an iterative process that enables the organization to establish, implement, and maintain the environmental (Sustainability) policy and to continually improve the EMS in order to enhance environmental performance.

1. **Leadership**
	1. **Leadership and commitment**

Top Management, with respect to the EMS, consists of the signatories of this document and Operations Management. Signatories to this document have established the company Environmental (Sustainability) policy and commit to ensure that the EMS:

* Is not managed in isolation, or separately from the core strategy of the business;
* Is considered when strategic business decisions are made;
* Is aligned with business objectives;
* Benefits from the appropriate level of resources provided in a timely and efficient manner;
* Receives the appropriate involvement from across the business;
* Provides real value to the organization;
* Continually improves and remains successful in the long term.

Top Management demonstrates leadership and commitment to these EMS principles by:

* Taking accountability for the effectiveness of the EMS;
* Ensuring that the environmental (Sustainability) policy and environmental objectives are established and are compatible with the strategic direction and the context of the organization;
* Ensuring the integration of the EMS requirements into Trans-Tech business processes;
* Ensuring that the resources needed for the EMS are available;
* Communicating the importance of effective environmental management and of conforming to the EMS requirements;
* Ensuring that the EMS achieves its intended outcomes;
* Directing and supporting people to contribute to the effectiveness of the EMS; Promoting continual improvement;
* Supporting the other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

Trans-Tech recognizes that attitudes towards Environmental Management and Sustainability have changed significantly and thus have become increasingly aware of the need to better manage natural resources and reduce their impact, not just to protect the environment, but because it’s a business necessity.

* 1. **Environmental Policy**

Trans-Tech has integrated environmental/sustainable business policy known as the Sustainability Policy. Refer to section 2 for the policy and associated requirements.

* 1. **Organizational roles, responsibilities, and authorities**

Trans-Tech has an established Management Procedure which defines roles and responsibilities for Trans-Tech management. There is a common management procedure utilized by both the Trans-Tech Quality and Sustainability systems (including the EMS). Further, specific SOP’s and work instructions each identify associated roles and responsibilities.

Top management designates the Sustainability / Risk Management organization with responsibility to develop, implement, and maintain this manual (including the EMS portion).

Top management designates the following responsibilities to the Environmental Department, Environmental Health & Safety Department, or associated Operations organization with responsibility for environmental matters.

* Ensuring the EMS conforms to the requirements of the ISO 14001 standard (current);
* Reporting on the performance of the EMS, including environmental performance, to top management.

Trans-Tech Senior Management shall demonstrate commitment and leadership to the EMS and its principles by supporting systems and personnel to:

* Take Accountability for the effectiveness of the EMS.
* Ensure the Sustainability Policy and environmental objectives are established and compatible with the strategic direction of the company.
* Ensure the integration of the EMS requirements into Trans-Tech business processes.
* Ensure the resources needed for the EMS are available locally.
* Communicate the importance of effective environmental management and of conforming to the EMS requirements.
* Ensure the EMS achieves its intended outcomes.
* Direct and supporting people to contribute to the effectiveness of the EMS.
* Promote continual improvement.
* Support the other relevant management roles to demonstrate leadership as it applies to their areas of responsibility.
* Appointing an Environmental Management Representative (EMR).

Environmental Management Representative (EMR) responsibilities include:

* Ensuring that an environmental management system conforms to the requirements of the ISO14001-2015 standard.
* Reporting to top management on the performance of the environmental management system. for review, including recommendations for improvement. Refer to **Section 9.3, Management Review**, for details.
* The EMR will coordinate a cross functional Environmental Improvement Team (EIT), to address environmental compliance matters as they pertain to the company as required.
* The EIT works with the EMR to annually review the ***Environmental Aspects, Objectives & Improvements, TT-WI-0212***. Additionally, the EIT will meet no less than monthly to review the ***TTI Environmental Legal & Other Requirements Calendar - TT-F0428***, review progress on the current Environmental Aspects, Objectives & Improvements, update the Environmental Performance Indicators and prepare communications for Management Review.

All Employees:

* Conformance to the EMS and supporting program requirements as applicable to their job function.
* Commitment to supporting the Sustainability Policy.
1. **Planning**
	1. **Actions to address risks and opportunities**
		1. **General**

Trans-Tech locations establish and implement local processes within their EMSs to meet the needs identified in Environmental Aspects (6.1.2), Compliance Obligations (6.1.3), and Planning Action (6.1.4). These planning processes consider the issues referenced in sec. 4.1 and the requirements identified in sec. 4.2. Risk and opportunities are identified to drive actions ensuring the EMS can achieve its intended outcomes, prevent, or reduce undesired effects, and achieve continual improvement.

* + 1. **Environmental aspects**

Trans-Tech establishes and implement local aspects process intended to identify the aspects of its activities, products, and services that it can control and those that it can influence, along with their associated impacts, considering a life cycle perspective. Makes considerations according to a life cycle perspective according to the specific manufactured products and evaluate the major elements contributing to it on through to the product(s) end of life.

Trans-Tech strives to continually reduce the environmental impacts from manufacturing and support activities. To do this effectively, we recognize it is important to first identify all environmental aspects which can result in impacts to the environment. Further, we identify those aspects which we determine to be significant. Details regarding this process can be referenced in ***Environmental Aspects, Objectives & Improvements (TT-WI-0212)***.

* + 1. **Compliance Obligations**

Trans-Tech established and implemented processes to determine and have access to their compliance obligations related to their significant aspects (6.1.2). Trans-Tech determined how these obligations apply and ensure they are considered when establishing, implementing, maintaining, and continually improving EMS.

Trans-Tech strives to comply with all applicable environmental regulatory requirements at all times. The EMR, in consultation with the Environmental Improvement Team determines the regulatory requirements through available regulatory references, training classes, trade organizations, and general industry knowledge and awareness.

* Local Newspaper: Frederick News Post
* Frederick Emergency Planning Commission Meeting
* Frederick Count Phone Alerts
* Maryland Dept of Environment
* OSHA News (Occupational Safety and Health Administration)
* Chesapeake Region Safety Council/Safety News Alerts
* REACH (Registration, Evaluation, Authorization and Restriction of Chemicals)
* Mondaq News Alerts
* EPA (Environmental Protection Agency)

Applicable legal & regulatory requirements are considered to manage the EMS. The EMR is responsible for completion of all required environmental regulatory submittals.

The EMR must keep and maintain a list of relevant environmental regulatory requirements. The list is to be maintained as a part of the ***Trans-Tech Legal & Other Requirements - TT-WI-0200 & Trans-Tech Environmental Legal & Other Requirements Calendar - TT-F0428***- is a form completed periodically and stored as a record on the Trans-Tech public drive. The completed form is used as a calendar of events to identify upcoming requirements and to ensure all required deadlines are known and met.

**"Other"** requirements include the following and may be referenced in locations other than the ***Trans-Tech Legal & Other Requirements TT-WI-0200***:

* **ISO 14001** - Refer to the ***Sustainability Systems Manual (SSM)***
* **Industry or Trade Association Guidance** - As specifically identified by Trans-Tech in ***Trans-Tech Legal & Other Requirements TT-WI-0200***.
* **Customer Requirements** - When customer requirements such as Banned and Restricted Materials lists, etc... are received in, they are documented in the Customer Management Database and Green Customer Survey Database. A designated Engineer shall review customer requirements ensuring they are appropriately addressed.
* **RBA -** Trans-Tech follows provision set forth by the RBA as shown by the annual completion of the RBA SAQ.

RBA Online is an online sustainability data management system designed to help RBA members and their suppliers manage and share sustainability data, including from audits and self-assessment questionnaires that assess risk at the corporate, facility and supplier level. (Reference <http://www.responsiblebusiness.org/standards/tools/rbaonline/>)

A copy of the report are available at Teams Drive:\ISO 14001\RBA (EICC) or any storefront.

* + 1. **Planning Action**

To address significant environmental aspects, compliance obligations and risks and opportunities, Trans-Tech as established processes to integrate and implement actions into the EMS, and to evaluate the effectiveness of those actions.

Trans-Tech strives to continually reduce the environmental impacts and risks from manufacturing and support activities, ensure compliance obligations and address other concerns. Details regarding this process can be referenced in ***Environmental Aspects, Objectives & Targets (TT-WI-0212)***. To ensure compliance obligations Trans-Tech uses a compliance calendar ***Trans-Tech Legal & Other Requirements - TT-WI-0200 & Trams-Tech Environmental Legal & Other Requirements Calendar - TT-F0428***

* 1. **Environmental objectives and planning to achieve them**
		1. **Environmental objectives**

Trans-Tech regularly establishes environmental objectives for improvement, considering significant environmental aspects and associated compliance obligations, and considering their risks and opportunities. These objectives are established consistently with the environmental (Sustainability) policy, and are measured (if practicable), monitored, communicated, and updated as appropriate.

Taking into consideration legal and other requirements, significant environmental aspects, technological options, financial, operational, and business requirements, views of interested parties and customer requests / requirements, the Trans-Tech Environmental Improvement Team periodically establishes objectives and targets for environmental improvement. Details regarding this can be referenced in ***Environmental Aspects, Objectives & Improvements (TT-WI-0212)***.

* + 1. **Planning actions to achieve environmental objectives**

When planning how to achieve environmental objectives, Trans-Tech shall within its processes, determine what will be done, what resources will be required, who will be responsible, when it will be completed, and how the results will be evaluated and monitored.

Environmental improvement opportunities (objectives), specific Project Champions are assigned by the EIT. Details regarding this can be referenced in ***Environmental Aspects, Objectives & Improvements (TT-WI-0212)***.

1. **Support**
	1. **Resources**

The signatories of this document commit to providing support and resources as needed for the establishment, implementation, maintenance, and continual improvement of the EMS. Trans-Tech has designated the Environmental Improvement Team to develop, implement, and maintain this document, its supporting policies, and programs. Top Management commits to providing resources essential to the implementation and control of the EMS. Such resources include but are not limited to human resources and specialized skills, technology, and financial resources.

Management shall provide the necessary financial resources, including professional staff and capital expenditures, to ensure compliance with applicable legal and regulatory requirements and the requirements of the Trans-Tech EMS.

Management is responsible for allocating the appropriate staffing and capital expenditures necessary to ensure the Trans-Tech EMR and the Environmental Improvement Team is equipped to provide effective and adequate environmental support.

Management is responsible for ensuring the Trans-Tech EMR has access to legal, regulatory, industry specific, and other information required for environmental compliance and effective environmental management. This includes access to up-to-date rules, regulations, and laws. Further, appropriate legal resources shall be allocated to provide interpretation and applicability of rules, regulations, and laws as needed. Other reference materials shall also be provided when necessary for effective environmental management. This may include periodicals, reference texts, internet access, etc…

Management is responsible for providing appropriate resources and personnel to respond to unexpected or accidental releases of hazardous materials to the environment. Trans-Tech also utilizes the municipal emergency responders and has procedures to notify them and the appropriate regulatory authorities. Details regarding this can be found in the ***Emergency Preparedness & Response TT-WI-0128***

* 1. **Competence**

In support of the EMS and the Sustainability policy, Trans-Tech determines the necessary competence of persons doing work under its control that affects its environmental performance and its ability to fulfil its compliance obligations. Competency is based on appropriate education, training, or experience. Training needs associated with environmental aspects and the EMS are determined. Where applicable, actions are taken to acquire the necessary competence and to evaluate the effectiveness of the actions taken.

**7.2.1 Employees**

Training at Trans-Tech is performed according to the provisions of ***Human Resources RFC-SOP-0017 and Operator Training Guidelines TT-WI-0174***. Additionally, Trans-Tech, uses an on-line internal documentation system, referred to as QSI, for read & response training to Process Control, Work Instruction, Form Control & Standard Operating Procedure documents. Job Descriptions & Competencies are defined in the Job Family List, Master Descriptions & Competencies. Appropriate records are maintained & retained with Human Resources.

All employees receive ***Sustainability Systems Manual (SSM) & Environmental Management System (EMS) General Awareness Training*** in which they are familiarized with the environmental policy, environmental systems, and general requirements.

Employee training requirements vary depending on the job function. Employee Learning Plans are developed and are based on each job functions’ ability to have an impact upon the environment. Records of training are maintained according to ***Human Resources RFC-SOP-0017, Operator Training Guidelines TT-WI-0174 & QSI.*** Training provided ensures employees understand the following:

* The importance of conforming with the SSM and procedures and with the requirements of the EMS.
* The significant environmental aspects and associated impacts of their work activities and the environmental benefits from improved personal performance.
* Roles and responsibilities in achieving conformance with the environmental policy and requirements of the EMS including emergency preparedness and response requirements
* The potential consequences of departure from specified operating procedure.

**7.2.2 Contractors**

Contractors and those working on behalf of Trans-Tech are expected conform to all applicable Trans-Tech policies and procedures while at Trans-Tech facilities. According to the provisions of the ***Contractor Environmental Health & Safety Agreement TT-PC-0615*** contractors are informed of key environmental health & safety requirements when they arrive on site. Where more specific training is required, it shall be specified. External training, where specified, is the responsibility of the contractor and the contractor shall keep and maintain records of this training. Refer to section 7.4.3.6 for External Communication for Contractors.

* 1. **Awareness**

Awareness is critical to the success of the EMS and the objectives identified within. Persons doing work under Trans-Tech control (including contractors working on behalf of Trans-Tech) are made aware of:

* The environmental (Sustainability) policy;
* The significant environmental aspects and related actual or potential impacts associated with the work of specific individuals or departments;
* The contribution of specific individuals or departments to the effectiveness of the EMS, including the benefits of enhanced performance;
* The implications of individuals or departments not conforming to the EMS requirements including not fulfilling associated compliance obligations.

Many methods of communication are utilized at Trans-Tech ensuring the above requirements are met. Those include, but are not limited to:

* Policy badges and posters;
* All employee training – While training is completed to establish competence for specific roles, some training associated with the EMS is provided to all employees to ensure awareness to the environmental (Sustainability) policy and its associated requirements. This training includes contractors and those working on behalf of Trans-Tech as applicable;
* Job or department specific training – This training identifies specific requirements necessary to conform to the EMS and its requirements associated with a specific job function or task.

All employees receive ***Sustainability Systems Manual (SSM) & Environmental Management System (EMS) General Awareness Training*** which they are familiar with the environmental policy, environmental systems, and general requirements. Additional employees and on-site contractors can find the Sustainability Policy posted thru out he factory and on the company website. Reference section 7.2 for competence training. The significant aspects and relevant environmental impacts are available at **Teams Drive:\ISO 14001\Aspects** and any storefront.

* 1. **Communication**
		1. **General**

Trans-Tech utilizes many methods and processes for communication of relevant information associated with the EMS both internally and externally.

* When Trans-Tech will communicate;
* With whom Trans-Tech will communicate;
* And how Trans-Tech will communicate.

Trans-Tech recognizes that thorough communication is critical to the effectiveness and overall success of the EMS. In support of this, we employ numerous methods of communication. ***Refer to Quality Systems Compliance RFC-SOP-0014 and Sustainability System Manual section 7.4.***

Management shall maintain an “open door policy” with all employees and the surrounding community regarding environmental compliance and environmental aspects and impacts.

The Sustainability Systems Manual (and the Sustainability Policy) is available upon request. Communication to other groups or individuals occurs as Internal and External Communication.

* + 1. **Internal communication**

Trans-Tech has established communications mechanisms ensuring information relevant to the EMS is communicated among various levels and functions.

**7.4.2.1 Employees**: Employees with questions regarding the Trans-Tech EMS may direct them to their immediate supervisors / managers, the Trans-Tech EMR, or the EIT. Employee comments / suggestions are discussed in the periodic Environmental Improvement Team (EIT) meetings. Details can be referenced in ***Environmental Aspects, Objectives & Improvements TT-WI-0212***. Also referenced in this work instruction are provisions that Environmental Aspects be posted on a public drive where employees have access to review. According to regulatory requirements, Trans-Tech keeps and maintains a ***Hazard Communication Program TT-WI-0207*** for appropriate communication of chemical hazards and associated requirements to employees. Many other mechanisms for communication of environmental issues to employees may be used including, but not limited to: Established training requirements (refer to **Section 7.2**), Communications Meetings, intranet, approved postings, e-mails, etc…

* + 1. **External communication**

To avoid misuse and/or misinterpretation, Trans-Tech has made the decision NOT to communicate information about our significant environmental aspects to external interested parties or the general public. Access to reports or other information required by regulations is available upon request to the public according to the applicable regulations or regulatory authority.

**7.4.3.1 Regulatory Authorities**: The Trans-Tech EMR, Trans-Tech Environmental, or other Senior Management designated employee corresponds with regulatory authorities. When on site for inspections or other official business, the Trans-Tech EMR or designated employee shall accompany them and respond to requests for information as needed. Records of the information given and/or the inspection results must be maintained. For issues or occurrences that require notification of regulatory authorities, Trans-Tech has an established notification procedure detailed in the ***Emergency Preparedness & Response TT-WI-0128***.

**7.4.3.2 Community**: Comments from the community or general public are received at the front lobby. Calls or walk-ins referencing environmental issues are routed to the Trans-Tech EMR. Calls and communications are recorded on the ***Environmental Comments Log TT-F0488***. The EMR receives the inquiry and provides information as appropriate to the inquiry. For valid and relevant complaints, the EMR notifies the Plant Manager (established top management for the Trans-Tech EMS) or appropriate management personnel. Management and the EMR then evaluate the issue and escalate it to the appropriate level of Trans-Tech management. Response to community comments / complaints shall be on a case-by-case basis depending on the nature and severity of the issue. Where appropriate and necessary, external communication shall be run through the ***Sustainability Team***. Records of comments made and information provided are maintained by the EMR. The general public has access to the **Sustainability Systems Manual** and other relevant environmental information upon request.

**7.4.3.3 Customers**: Typically, customer related environmental inquiries are received through the ***Trans-Tech Sales / Marketing or Quality Depts***. Questionnaires or customer inquiries are routed to the appropriate personnel for response. For more details on this process, refer to the ***Supplier Sustainability Specification RFC-SOP-0003***.

**7.4.3.4 External Interested Parties (General Public): -** To avoid misuse and/or misinterpretation, Trans-Tech has made the decision NOT to communicate information about our significant environmental aspects to external interested parties or the general public. Access to reports or other information required by regulations is available upon request to the public according to the applicable regulations or regulatory authority.

**7.4.3.5 Visitors:** Posted in the front lobby is the ***EHS Information Pamphlet (TT-F0608).***  This pamphlet details pertinent Environmental Health & Safety information to notify visitors of evacuation procedures, the presence of hazardous materials, the Sustainability Policy and emergency phone numbers. Employees receiving business visitors are responsible for ensuring that those visitors receive this information pamphlet.

**7.4.3.6 Contractors:** When the contractor arrives on-site they will be trained in key environmental health & safety topics relevant to their visit using the ***Contractor Environmental, Health & Safety Agreement TT-PC-0615.*** The Trans-Tech contact is responsible for making sure the on-site contractor receives their training and sign the ***Contractor Safety Pamphlet TT-F0604***. These can be found in the factory lobby. Refer to section 7.2.2 for Contractor Competency.

* 1. **Documented information**

Documentation associated with the Trans-Tech EMS and all other documentation is maintained according to established document control procedures. ***Document and Data Control Procedure TT-WI-0101*** ensures documents are:

* Easily accessible through electronic links from each department's "Storefront/Dashboard".
* Periodically reviewed and revised as necessary and approved for adequacy by appropriate personnel
* Currently with current revisions available at all necessary locations to ensure effective functioning of the EMS
* Controlled such that obsolete documents are promptly removed at all points of use or are appropriately protected against unintended use
* Controlled such that obsolete documents retained for legal or other purposes are appropriately identified
	+ 1. **General**

Where necessary to ensure conformance to the environmental (Sustainability) policy and the requirements of the EMS, documented information is maintained.

* + 1. **Creating and updating**

Documented information is created and maintained according to a company level Document and Data Control procedure. This procedure ensures appropriate identification and description of documents, appropriate formats and media are used, and appropriate review and approval is in place for suitability and adequacy.

* + 1. **Control of documented information**

Documented information required by the EMS is controlled to ensure its availability and suitability for use where and when it is needed, and it is adequately protected (eg: from loss of confidentiality, improper use, or loss of integrity). Trans-Tech utilizes a company level Document and Data Control procedure to address the following activities as applicable:

* Storage and preservation, including preservation of legibility;
* Control of changes (e.g., version control);
* Retention and disposition

This company level process also addresses information of external origin determined necessary for the planning and operation of the EMS. This includes but is not limited to:

* ISO 14001 standard (current version)
* RBA Code of Conduct (current version)

Other information of external origin that is identified within specific processes of the EMS are specified within those processes.

1. **Operation**
	1. **Operational planning and control**

Ensuring operations and associated processes are conducted in a controlled way to fulfil the commitments of the environmental (Sustainability) policy, achieve environmental objectives, and manage significant environmental aspects, compliance obligations and risks and opportunities that need to be addressed, appropriate operational controls are established, implemented, and maintained.

When considering controls for adverse environmental impacts, Trans-Tech follows the following hierarchy:

* Elimination (eg: banning the use of identified materials);
* Substitution (eg: changing a cleaning operation from using solvent to using water);
* Engineering controls (eg: emissions control or emissions abatement systems)
* Administrative controls (eg: procedures, work instructions, visual checks)

When developing controls, sites shall use a life cycle perspective, evaluating the type and extent of control or influence to be applied during life cycle stages. Life cycle stages consider such things as supply chain, materials purchasing, design of the product including materials restrictions or energy efficiency, design of the manufacturing processes, operation of the manufacturing processes, and waste / emissions minimization.

**8.1.1 Facility Design Review**

Trans-Tech ensures all projects with a potential environmental impact receive the appropriate review and approval so that environmental improvement strategies can be built into projects and processes up front. This review considers such things as chemical use, hazardous waste, emissions to air, water use, energy consumption, wastewater generation, and other relevant environmental considerations. The process of Environmental Review (as well as Safety and other relevant considerations) is accomplished using the Trans-Tech ***Pre-Purchase Equipment Evaluation TT-PC-0553.***

**8.1.2 Critical Environmental Systems**

All equipment and devices required to operate within established parameters for the purpose of environmental compliance or conformance to the Trans-Tech EMS are identified. These devices are periodically checked to verify their operation conforms to the specified operating requirements. Details regarding this requirement can be found in the respective work instructions or operating manual***.***

Where required by a permit, regulatory requirement, or the Trans-Tech EMS, other records are maintained on critical environmental systems. Such records are maintained by the EMR or as prescribed in specific supporting work instructions and are made available to the applicable regulatory authority upon request.

**8.1.3 Preventive Maintenance**

Trans-Tech maintains a preventative maintenance program ensuring all devices & equipment are properly maintained whose operation, if not properly maintained, could lead to an adverse impact to the environment or a regulatory violation. For more information, refer to ***Facilities Preventative Maintenance TT-WI-0202, Preventive Maintenance TT-WI-0121, respective work instruction, Health and Safety Calendar, Operation / Equipment Manuals and PM database in QSI.***

**8.1.4 New Procedures, Equipment & Process Changes**

New and revised processes are given appropriate environmental review to ensure all considerations are made including hazardous materials use, hazardous waste generation, emissions to air, emissions to water, water consumption, energy consumption, etc… Documents written by Trans-Tech personnel must be written according to the provisions of ***Document and Data Control Procedure TT-WI-0101.*** The doc. approval procedure, along with the **Facility Design Review** referenced in section **8.1.1** ensures all new operations and activities associated with identified significant environmental aspects/impacts are considered. When purchasing new or used equipment or returning equipment from long term storage the form ***PRE-PURCHASE and TRANSFERRED EQUIPMENT EVALUATION FORM TT-F0443*** should be filled out and given to the EH&S Coordinator for review. The EH&S Coordinator will ensure the equipment meets all safety and environmental requirements.

**8.1.5 Environmental Permits, Fees, Registrations and Reports**

The EMR and EHS Coordinator manage and are responsible for all environmental permits, fees, registrations, reports, etc. as required by applicable regulatory requirements. Required permits including, but not limited to Air, Wastewater, Hazardous Waste and Hazardous Materials, are kept on file according to records retention requirements. Renewals, routine fees, etc., are tracked according to ***Trans-Tech Environmental Legal & Other Requirements TT-WI-0200.***

**8.1.6 Hazardous Materials and Hazardous Waste**

Hazardous materials are purchased, stored, and handled according to the provisions of the ***Hazard Communication Program - TT-WI-0207***. The Purchasing Department is the authorized purchaser of hazardous materials. Purchasing arrangements for all purchases and coordinates delivery through on-site hazardous materials handlers approved to receive the materials. Prior to purchase by the Purchasing Department, hazardous materials must be approved as specified in ***the Hazard Communication Program TT-WI-0207***. Details regarding the chemical approval process can be referenced in the ***New Chemical Request Form TT-F0459***.

Hazardous Wastes generated at the facility are controlled and collected within work areas according to the requirements of ***Storage and Disposal of Hazardous Waste TT-WI-0156***. This procedure ensures safe and appropriate collection of hazardous wastes, along with provisions for appropriate handling, storage, packaging, transportation, and off-site disposal of hazardous wastes.

Waste electronic equipment, batteries and light tubes are all handled according to applicable regulatory requirements. To control this, Trans-Tech utilizes the ***E-Waste, Battery, Light Tube, and Universal Waste Recycling Procedure (TT-WI-0204).***

Contractors are prohibited from bringing or storing hazardous materials on site without prior written approval. Reference ***Hazard Communication Plan TT-WI-0207***, ***Contractor Environmental, Health & Safety Agreement***, ***TT-PC-0615,*** for details.

**8.1.7 Life Cycle**

Refer to Sustainability Systems Manual **section 8.1** covers operations planning and controls process.

 Also refer to:

* The above section 8.1 which covers Universal Waste, General Waste, Hazardous Waste and Recycling.
* TT-WI-0141 Nonconforming Material Control may also be used to dispose of purchased and manufactured products.
	1. **Emergency preparedness and response**

Appropriate procedures are maintained to identify the potential for accidents, respond to emergency situations, and to prevent and mitigate environmental impacts that may be associated with them. These procedures are reviewed and revised when necessary and following the occurrence of drills, accidents, or emergency situations. These procedures are periodically tested where practicable to ensure their effectiveness. Employees at all locations receive relevant information and training related to emergency preparedness and response including employees and contractors working on behalf of Trans-Tech.

Trans-Tech keeps and maintains the ***Emergency Preparedness & Response plan - TT-WI-0128*** as a consolidated reference for emergency response information. The plan is designed to provide instructions for notification(s) and subsequent response and management of emergency situations. Building maps are posted with evacuation routes throughout the facilities. Designated meeting locations have been identified where employees are to assemble and check in following an emergency evacuation.

1. **Performance evaluation**
	1. **Monitoring, measurement, analysis and evaluation**

The EIT and/or established EMR works to determine appropriate, measurable indicators of environmental performance and tracks the appropriate indicators. These indicators are known as Environmental Performance Indicators (EPIs). EPIs are used, where possible, to measure the progress and status of objectives and improvements. EPIs are maintained by the Facilities Department and/or EMR and are kept on file on theTrans-Tech Public drive. Further details regarding EPIs can be referenced in ***Environmental Aspects, Objectives & Improvements TT-WI-0212.***

Where required by applicable regulations, the Facilities Department and/or EMR also keeps and maintains compliance related records associated with regulatory documents such as air permits, industrial wastewater permits, etc. Details regarding monitoring and measurement of regulatory requirements can be referenced in ***TTI Environmental Legal and Other Requirements (TT-WI-0200).***

* + 1. **General**

Trans-Tech employs a systematic approach for monitoring, measurement, analysis, and evaluation of its environmental performance on a regular basis. Defined within our processes are specific categories regularly monitored and which are used to assess the overall performance of the EMS. Examples include water and energy use efficiency, hazardous and municipal waste generation rates, and CO2 equivalent emissions rates.

Each Manufacturing and Support Organization plans and implements the measurement, monitoring, analysis and improvement activities used to assure conformance to product and customer requirements and continual improvement of the quality management system. This includes determination of the need for, and use of, applicable methodologies including statistical techniques.

* + 1. **Evaluation of Compliance**

Trans-Tech has established a process to periodically evaluate fulfilment of its compliance obligations as identified according to sec. 4.2 and 6.1.3. The evaluation of compliance process is integrated into the company level internal audit program (9.2). The program establishes a regular frequency of evaluation of compliance, drives actions taken in response (see sec. 10.2), and maintains the company’s knowledge and understanding of its compliance status. Documentation is maintained according to the process requirements as evidence of the compliance evaluation results.

A regulatory compliance calendar is kept and maintained on the Trans-Tech public drive that can be access thru storefronts according to the provisions of ***Trans-Tech Environmental Legal and Other Requirements (TT-WI-0200)***. Historical (completed) compliance calendars are maintained on the public drive as well as confirmation of completed regulatory requirements for the respective years.

The Facilities Department and/or established EMR ensures consistent evaluation of regulatory compliance via the following methods:

* ***Audit Program Management RFC-WI-0011.***
* ***Internal Corrective/Preventative Action Request Processing - RFC-WI-0012***
* ***Preventive Maintenance for operations equipment & facilities related systems & subsystems TT-WI-0202 & TT-WI-0121.***
* ***Trans-Tech Environmental Legal and Other Requirements TT-WI-0200***
	1. **Internal Audit**

An internal audit program is maintained to determine whether the Trans-Tech EMS (1) conforms to planned arrangements for environmental management including the requirements of the ***Trans-Tech Sustainability Systems Manual***, the ***ISO 14001 standard***, and applicable ***regulatory requirements***, and (2) has been properly implemented and is maintained. Details regarding the internal audit program can be found in ***Audit Program Management RFC-WI-0011*** (Ref to Corrective and Preventive Action section). Audit results are communicated to top management and records of the audits are maintained.

* + 1. **General**

Trans-Tech regularly conducts internal audits, at planned intervals, providing information on whether the EMS:

* Conforms to Trans-Tech own requirements for the EMS as contained within this manual and the associated local EMSs identified in sec. 4.3;
* Conforms to the requirements of the latest ISO 14001 standard;
* Is effectively implemented and maintained.
	+ 1. **Internal Audit Program**

To effectively perform internal audits within the company, Trans-Tech has an established internal audit program specifying frequency, methods, responsibilities, planning requirements, and reporting of results. Audits shall take into consideration the environmental importance of the processes concerned, changes affecting the organization, and results of previous audits. Audit reports are retained as documented evidence of implementation of the audit program and audit results.

* 1. **Management Review**

Top Management is provided with information on the EMS and shall review the associated EMS, at planned intervals, ensuring its continuing suitability, adequacy and effectiveness. Trans-Tech has an established program by which management reviews are performed. Management reviews are documented along with outputs from the review process including but not limited to conclusions about the EMS, decisions regarding continuous improvement, decisions related to any need for changes to the EMS, actions taken or needed, opportunities to improve integration of the EMS with other business processes, and any implications regarding Trans-Tech’s strategic direction.

Top Management for the Trans-Tech EMS is provided with information on the EMS to ensure they are aware of its continuing suitability, adequacy and effectiveness.

For details regarding this process, refer to ***Quality Systems Compliance RFC-SOP-0014 (Refer to Management section) and Planning of Quality and Business Objectives (RFC-WI-0008)***

1. **Improvement**
	1. **General**

Through monitoring and measurement (9.1), internal audit (9.2), and management review (9.3), opportunities to improve the EMS and its intended outcomes are determined.

* 1. **Nonconformity and Corrective Action**

Trans-Tech operates a company level corrective and preventative action process by which nonconformities to the EMS or the ISO 14001 standard can be effectively and systematically addressed through the issuance of corrective or preventative action requests. Documented information is retained as evidence of the nature of the nonconformities and any subsequent actions taken, as well as the results of those actions.

Trans-Tech ensures that the product or systems which do not conform to requirements are identified and controlled to prevent unintended use or delivery. These activities and responsibilities are defined in documented procedure. Reference ***TT-SOP-0038 Product Control Procedure and TT-WI-0141 Nonconforming Material Control***

The system provides for identification, documentation (record keeping), evaluation, segregation (when practical or needed), disposition of nonconforming product or material, and for notification of the functions concerned. Nonconforming products or material is segregated (when practical) and immediately placed in a status that prevents reintroduction into the production flow.

Visual identification of nonconforming or suspect material or product, and any quarantine areas are provided.

Timely identification and correction of environmental compliance and Trans-Tech EMS nonconformance issues are critical to ensure the success of the Trans-Tech EMS and control /minimization of environmental impacts.

***Internal Corrective/Preventative Action Request Processing - RFC-WI-0012*** details the system by which CARs and PARs are assigned and tracked to completion. CARs and PARs may be written by any person within the Trans-Tech organization. CARs and PARs are reviewed by management according to ***Audit Program Management RFC-WI-0011*** *(Ref to Corrective and Preventive Action section)*

* 1. **Continual Improvement**

Trans-Tech strives to improve and shall take actions to continuously improve the suitability, adequacy, and effectiveness of the EMS through the use of the quality policy, objectives, audit results, analysis of data, corrective and preventive action and management review. Designated EMS representatives periodically meet to assess the performance of the EMS and to drive continuous improvement. **Reference RFC-WI-0013 Continuous Improvement.**

Additionally, Trans-Tech utilizes information from the following sources:

* Trade associations and peer groups including, but not limited to the Responsible Business Alliance (RBA);
* Results of internal and external audits;
* Views of interested parties including employees, customers, suppliers, and the communities in which we operate;
* Results from monitoring and measuring (9.1).
1. **Definitions**

|  |  |
| --- | --- |
| **Terminology** | **Definition** |
| **Aspects** | Elements of an organization's activities, products or services that can interact with the environment. |
| **Code of Conduct (Code)** | The Responsible Business Alliance Code of Conduct. It is available at: http://www.responsiblebusiness.org/standards/code‐of‐ conduct/ |
| **EIT** | Environmental Improvement Team |
| **Emissions** | Any pollutant (as defined by the applicable regulatory authority) emitted from a device or group of devices with can result in an environmental impact |
| **EMR** | Environmental Management Representative |
| **EMS** | Environmental Management System  |
| **Environment** | Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation. |
| **Environmental Impact** | Any change to the environment, whether adverse or beneficial, wholly or partially resulting from a organization's activities, products or services. |
| **GM** | General Manager |
| **KPI’s** | Key Performance Indicators (metrics) |
| **Senior Staff** | The group consisting of the senior leaders of the organization (Human Resources, Quality Technology, Operations, and Sales) |
| **SOP** | Standard Operating Procedure |
| **SSM** | Sustainability System Manual |
| **Storefront/Dashboard** | Employee computer access to documents related to each department's respective area of responsibility including SSM & EMS documents. |
| **Sustainability** | Operating according to business practices that meet the needs of the present without compromising the ability of future generations to meet their own needs. At a minimum, this encompasses the areas of Environmental, Labor, Health & Safety, Ethics, and Management Systems. |
| **Sustainability Team** | The team works to develop and implement programs ensuring we uphold our Sustainability Policy commitments and requirements established in this manual, both with Trans-Tech, and in our supply chain. |
| **RBA** | Responsible Business AllianceThe RBA is a nonprofit coalition of companies committed to supporting the rights and well‐being of workers and communities worldwide affected by the global supply chain. RBA members commit and are held accountable to this common Code. |
| **EMS** | Environmental Management System  |
| **SOP**  | Standard Operating Procedure |
| **VAP** | Validated Audit Process – An RMA standardized audit protocol |

1. **Quality Records**

As a result of following the steps described in this document, these records are generated:

Refer to the associated work instructions and supporting forms for specific record retention requirements. Where records retention requirements, established in ***Document and Data Control Procedure TT-WI-0101,*** are not sufficient to meet applicable regulatory requirements, the regulatory requirements shall be referenced and followed.

1. **Associated Documents**

|  |  |
| --- | --- |
| **Document Number** | **Document Title** |
| **RFC-SOP-0001** | Quality Manual |
| **RFC-SOP-0003** | RF Ceramic Supplier Sustainability Specification |
| **RFC-SOP-0014** | Quality System Compliance |
| **RFC-SOP-0016** | Trans-Tech Sustainability System Manual |
| **RFC-SOP-0017** | Human Resources |
| **RFC-WI-0008** | Planning of Quality and Business Objectives |
| **RFC-WI-0011** | Audit Program Management |
| **RFC-WI-0012** | Internal Corrective/Preventive Action Request Processing |
| **RFC-WI-0013** | Continuous Improvement |
| **TT-PC-0553** | Pre-Purchase Equipment Evaluation |
| **TT-PC-0614** | Environmental Health & Safety Information Pamphlet |
| **TT-PC-0615** | Contractor Environmental Health & Safety Agreement |
| **TT-SOP-0038** | Product control Procedure |
| **TT-WI-0101** | Document and Data Control Procedure |
| **TT-WI-0121** | Preventive Maintenance |
| **TT-WI-0128** | Emergency Preparedness & Response |
| **TT-WI-0141** | Nonconforming Material Control |
| **TT-WI-0156** | Storage and Disposal of Hazardous Waste |
| **TT-WI-0174** | Training Guidelines |
| **TT-WI-0200** | Trans-Tech Legal and Other Requirements |
| **TT-WI-0202** | Facilities Preventive Maintenance |
| **TT-WI-0204** | E-Waste Battery and Universal Waste Recycling |
| **TT-WI-0207** | Hazard Communication Program |
| **TT-WI-0212** | Environmental Aspects Objectives & Improvements |

1. **Reason for Change**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Number shall match Doc Header* | *When was the change promoted?* | *Who is promoting the change?* | *Describe the change made to this document* | *Explain what triggered the change* | *Identify positive or negative consequences to the organization* | *How do you plan to deploy this change and what will be the impact to associated documents?* | *What group will be responsible to execute this change?* |
| **Revision** | **Date** | **Initiator** | **Change Description** | **Change Purpose** | **Potential Consequences** | **Deployment Strategy** | **Impacted Function** |
| 2 | 01/22/24 | M. Cope | Combine both EMS (TT db) and SSM (RFC db) into one document | Combine SSM and EMS manual | Combining 2 documents into 1.  | Submit for approval | EMS |
| 3 | 09/09/24 | M. Cope | Remove RBA Code of Conduct at the end of manual. Include Climate Change statement in section 4.1 and 4.2 Added Mike Hill as an approverrelink all documents, change logo, add web link reference to RBA Appendix A V.8 2024 | Review of new criteria to ISO standard on Climate Change | None | Update and submit for approval | EMS |
| 4 | 03/10/254/3/254/17/25 | M. Cope | *Added to climate change statement in section 4.1 “during annual review per* ***RFC-SOP-0019 Business Continuity/Disaster Recovery Plan and TT-WI\_0212 Environmental Aspects Objectives & Improvements****4.3. add map of Adamstown location (PAR-646)*6.1.3 add list of regulatory referencesPer PAR-646 Added reference to Quality Manual (Refer to page 1 System Structure section.PAR-651 – include insurance to interested parties | Add clarification, recommendation from Internal Audit | Add reference to methods that used | Update and submit for approval | EMS/ Senior Staff |