# **R2v3 Certification Self-Assessment Tool**

#### Introduction

This comprehensive self-assessment tool is designed to evaluate organizational readiness for R2v3 (Responsible Recycling) certification. Each question requires documentary evidence, implemented processes, or demonstrable controls that would be verified during an actual certification audit by bodies such as SERI (Sustainable Electronics Recycling International).

#### Instructions for Use:

- Provide specific documentation, procedures, or evidence for each question
- Reference relevant REC (Responsible Electronics Recycling) mappings
- Identify gaps requiring remediation prior to formal audit
- Maintain supporting documentation for auditor review

# **CORE REQUIREMENTS (CR1-CR10)**

#### **CR1: SCOPE**

- **CR1.1** What documented scope statement defines the specific activities, materials, and services covered under your R2v3 certification? Provide the approved scope document and evidence of management review.
- **CR1.2** How do you ensure that all activities within your defined scope are consistently applied across all operational locations? Provide site-specific scope implementation procedures.
- **CR1.3** What process controls prevent scope creep or unauthorized activities outside your certified scope? Provide documented change control procedures.
- **CR1.4** How do you communicate your certified scope to customers, suppliers, and stakeholders? Provide examples of scope communication materials and customer contracts.

#### CR2: HIERARCHY OF RESPONSIBLE MANAGEMENT STRATEGIES

- **CR2.1** What documented hierarchy prioritizes reuse over recycling and recycling over disposal? Provide your written hierarchy policy and implementation procedures.
- **CR2.2** How do you evaluate and document that higher hierarchy options have been exhausted before moving to lower priority options? Provide decision matrices and evaluation procedures.

- **CR2.3** What tracking mechanisms demonstrate that materials follow the established hierarchy in practice? Provide material flow tracking reports and evidence of hierarchy compliance.
- **CR2.4** How do you train personnel on hierarchy implementation and decision-making? Provide training records and competency assessments.

### CR3: ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT SYSTEM (EHSMS)

- **CR3.1** What documented EHSMS framework addresses all environmental, health, and safety aspects of your operations? Provide your EHSMS manual and organizational structure.
- **CR3.2** How do you identify, assess, and control EHS risks associated with electronics recycling activities? Provide risk assessments and control implementation records.
- **CR3.3** What emergency response procedures address potential incidents involving hazardous materials or equipment failures? Provide emergency response plans and drill records.
- **CR3.4** How do you monitor and measure EHS performance indicators? Provide KPI tracking reports and management review records.
- **CR3.5** What corrective and preventive action processes address EHS non-conformances? Provide CAPA procedures and implementation examples.

### **CR4: LEGAL AND OTHER REQUIREMENTS**

- **CR4.1** What systematic process identifies all applicable federal, state, and local regulations affecting your operations? Provide legal register and update procedures.
- **CR4.2** How do you ensure ongoing compliance with identified legal requirements? Provide compliance monitoring procedures and audit records.
- **CR4.3** What process manages changes in regulatory requirements and their implementation? Provide regulatory change management procedures.
- **CR4.4** How do you maintain required permits, licenses, and registrations? Provide current permits and renewal tracking systems.
- **CR4.5** What documentation demonstrates compliance with specific electronics recycling regulations (e.g., RCRA, CRT Rule, export regulations)? Provide compliance records and regulatory submissions.

#### **CR5: TRACKING THROUGHPUT**

**CR5.1** What data management system tracks all incoming, processed, and outgoing materials by weight and type? Provide system documentation and data integrity procedures.

- **CR5.2** How do you ensure accuracy and completeness of throughput data? Provide data validation procedures and accuracy verification records.
- **CR5.3** What process reconciles physical inventory with tracked throughput data? Provide reconciliation procedures and variance analysis reports.
- **CR5.4** How do you maintain throughput records for the required retention period? Provide record retention procedures and archive management systems.
- **CR5.5** What controls prevent unauthorized removal or untracked processing of materials? Provide security procedures and access control documentation.

#### **CR6: REUSABLE EQUIPMENT AND COMPONENTS**

- **CR6.1** What systematic evaluation process determines equipment suitability for reuse? Provide evaluation criteria and testing procedures.
- **CR6.2** How do you ensure reusable equipment meets safety and performance standards? Provide testing protocols and quality assurance procedures.
- **CR6.3** What process manages the refurbishment and preparation of equipment for reuse? Provide refurbishment procedures and quality control checkpoints.
- **CR6.4** How do you track and document the destination of reusable equipment? Provide chain-of-custody procedures and destination verification records.
- **CR6.5** What controls prevent inappropriate disposal of reusable equipment? Provide decision-making criteria and override authorization procedures.

#### **CR7: DATA SECURITY**

- **CR7.1** What comprehensive data security program protects confidential information on incoming equipment? Provide data security policies and implementation procedures.
- **CR7.2** How do you ensure complete data destruction or sanitization of storage devices? Provide data destruction procedures and verification protocols.
- **CR7.3** What access controls limit personnel exposure to confidential data during processing? Provide access control procedures and authorization matrices.
- **CR7.4** How do you handle and protect data discovery incidents during processing? Provide data incident response procedures and escalation protocols.
- **CR7.5** What documentation demonstrates effective data security implementation? Provide security audit records and compliance verification reports.

#### **CR8: FOCUS MATERIALS**

- **CR8.1** What process identifies and segregates focus materials requiring special handling? Provide identification procedures and segregation protocols.
- **CR8.2** How do you ensure focus materials are sent only to R2v3 certified downstream vendors? Provide vendor qualification procedures and certification verification records.
- **CR8.3** What tracking system monitors focus materials from receipt through final disposition? Provide focus materials tracking procedures and chain-of-custody documentation.
- **CR8.4** How do you verify that focus materials receive appropriate processing at downstream facilities? Provide downstream verification procedures and audit records.
- **CR8.5** What controls prevent inappropriate handling or disposal of focus materials? Provide handling procedures and violation reporting systems.

### **CR9: FACILITY REQUIREMENTS**

- **CR9.1** What facility design features prevent environmental releases and protect worker safety? Provide facility drawings and engineering control documentation.
- **CR9.2** How do you maintain appropriate storage conditions for different material types? Provide storage area specifications and environmental monitoring records.
- **CR9.3** What housekeeping and maintenance programs ensure facility integrity? Provide maintenance schedules and housekeeping inspection records.
- **CR9.4** How do you control access to operational areas and sensitive materials? Provide facility security procedures and access control systems documentation.
- **CR9.5** What process manages facility modifications and their impact on operations? Provide change control procedures and modification approval records.

#### **CR10: TRANSPORT**

- **CR10.1** What transportation management system ensures compliant shipment of materials? Provide transportation procedures and carrier qualification requirements.
- **CR10.2** How do you verify that transporters are properly licensed and insured for the materials being shipped? Provide carrier verification procedures and qualification records.
- **CR10.3** What process ensures proper packaging, labeling, and manifesting of shipped materials? Provide packaging procedures and shipping documentation templates.

**CR10.4** How do you track shipments and verify delivery to intended destinations? Provide shipment tracking procedures and delivery confirmation protocols.

**CR10.5** What emergency response capabilities address transportation incidents? Provide transportation emergency response plans and contact procedures.

#### APPENDIX A: DOWNSTREAM RECYCLING CHAIN

## **Vendor Qualification and Management**

**A.1** What systematic vendor qualification process ensures downstream partners meet R2v3 certification requirements? Provide vendor qualification procedures, evaluation criteria, and current qualified vendor list with certification status verification.

**A.2** How do you conduct initial due diligence assessments of potential downstream recycling partners? Provide due diligence questionnaires, site visit protocols, and completed assessment reports for recent vendor qualifications.

**A.3** What ongoing monitoring program verifies continued compliance of qualified downstream vendors? Provide vendor monitoring procedures, audit schedules, and recent monitoring reports demonstrating continued compliance verification.

**A.4** How do you manage vendor performance issues and non-conformances discovered during monitoring activities? Provide vendor corrective action procedures, escalation protocols, and examples of implemented corrective actions.

**A.5** What contract provisions ensure downstream vendors maintain R2v3 certification and comply with material handling requirements? Provide template contracts with R2v3 clauses and executed agreements demonstrating certification maintenance requirements.

# **Chain of Custody and Documentation**

**A.6** What chain-of-custody documentation system tracks materials through the entire downstream recycling chain? Provide chain-of-custody procedures, documentation templates, and completed tracking records for recent shipments.

**A.7** How do you verify that materials reach their intended final disposition as specified in customer agreements? Provide final disposition verification procedures and documentation demonstrating material endpoint confirmation.

**A.8** What process ensures accurate and complete documentation accompanies all material shipments to downstream vendors? Provide shipping documentation procedures, manifest templates, and examples of

complete shipment documentation packages.

**A.9** How do you maintain and organize downstream recycling chain documentation for audit purposes? Provide record retention procedures, filing systems, and examples of organized documentation sets available for auditor review.

**A.10** What communication protocols ensure downstream vendors understand material handling requirements and restrictions? Provide vendor communication procedures and examples of material-specific handling instructions provided to downstream partners.

### **Downstream Auditing and Verification**

- **A.11** What systematic downstream audit program verifies vendor compliance with R2v3 requirements and contractual obligations? Provide downstream audit procedures, audit schedules, and completed audit reports for recent vendor assessments.
- **A.12** How do you ensure qualified personnel conduct downstream audits with appropriate technical expertise? Provide auditor qualification requirements, training records, and evidence of auditor competency for downstream assessments.
- **A.13** What process addresses non-conformances identified during downstream audits? Provide non-conformance management procedures and examples of corrective action plans implemented by downstream vendors.
- **A.14** How do you verify implementation and effectiveness of corrective actions at downstream facilities? Provide corrective action verification procedures and follow-up audit reports demonstrating successful implementation.
- **A.15** What escalation process manages downstream vendors who fail to maintain compliance despite corrective action efforts? Provide vendor termination procedures, alternative sourcing protocols, and examples of vendor relationship terminations due to compliance failures.

# **Material Flow and Tracking**

**A.16** What tracking system monitors material volumes and types sent to each downstream vendor? Provide material flow tracking procedures, database specifications, and reports showing material distribution to downstream partners.

**A.17** How do you ensure material tracking accuracy throughout the downstream recycling chain? Provide data validation procedures, reconciliation protocols, and examples of tracking accuracy verification activities.

- **A.18** What process manages changes in material destinations or downstream vendor assignments? Provide change management procedures and documentation of recent material flow changes with appropriate approvals and notifications.
- **A.19** How do you maintain visibility into subsequent downstream processing steps beyond immediate vendors? Provide extended chain visibility procedures and documentation of multi-tier downstream tracking capabilities.
- **A.20** What reporting system provides management and customers with downstream recycling chain performance data? Provide downstream performance reporting procedures, standard reports, and examples of chain performance summaries provided to stakeholders.

#### **APPENDIX B: DATA SANITIZATION**

#### **Data Sanitization Policies and Procedures**

- **B.1** What comprehensive data sanitization policy defines requirements for all types of data storage devices and media? Provide the complete data sanitization policy, implementation procedures, and device-specific sanitization protocols covering all media types processed.
- **B.2** How do you identify and classify different types of data storage devices requiring sanitization? Provide device identification procedures, classification criteria, and examples of device categorization documentation used in processing.
- **B.3** What process determines appropriate sanitization methods based on device type, customer requirements, and security classifications? Provide sanitization method selection procedures, decision matrices, and examples of method selection documentation.
- **B.4** How do you ensure data sanitization procedures align with recognized industry standards and customer-specific requirements? Provide standards compliance documentation, customer requirement analysis procedures, and evidence of standards implementation.
- **B.5** What training program ensures personnel competency in data sanitization techniques and procedures? Provide training curricula, competency assessments, and training records for all personnel involved in data sanitization activities.

# **Sanitization Methods and Technologies**

**B.6** What physical destruction methods do you employ for devices requiring physical destruction? Provide physical destruction procedures, equipment specifications, and destruction verification protocols with photographic documentation.

- **B.7** How do you implement and verify logical sanitization methods for devices suitable for reuse? Provide logical sanitization procedures, software specifications, and verification testing protocols demonstrating complete data removal.
- **B.8** What degaussing procedures do you use for magnetic media sanitization? Provide degaussing procedures, equipment calibration records, and verification testing protocols demonstrating effective magnetic field strength.
- **B.9** How do you handle encrypted storage devices and ensure proper key destruction or cryptographic erasure? Provide encrypted device handling procedures, key management protocols, and encryption sanitization verification methods.
- **B.10** What specialized sanitization methods do you employ for solid-state drives and other non-traditional storage media? Provide SSD sanitization procedures, method validation documentation, and effectiveness verification protocols.

#### **Verification and Documentation**

- **B.11** What verification process confirms complete data sanitization before device disposition? Provide sanitization verification procedures, testing protocols, and examples of completed verification documentation.
- **B.12** How do you document and maintain records of all sanitization activities? Provide sanitization record-keeping procedures, documentation templates, and examples of complete sanitization activity records.
- **B.13** What quality assurance program ensures consistent sanitization performance across all devices and operations? Provide QA procedures, sampling protocols, and quality assurance audit records for sanitization operations.
- **B.14** How do you provide customers with appropriate sanitization certificates and documentation? Provide certificate templates, customer reporting procedures, and examples of sanitization certificates provided to customers.
- **B.15** What process manages sanitization failures and devices requiring re-processing? Provide failure handling procedures, re-processing protocols, and documentation of sanitization failure investigations and resolutions.

# **Equipment and Infrastructure**

**B.16** What sanitization equipment inventory do you maintain to support diverse device types and customer requirements? Provide equipment inventory lists, maintenance schedules, and capability matrices showing equipment suitability for different device types.

- **B.17** How do you calibrate and maintain sanitization equipment to ensure consistent performance? Provide equipment calibration procedures, maintenance schedules, and calibration records demonstrating ongoing equipment performance validation.
- **B.18** What environmental controls protect sanitization operations and prevent data compromise during processing? Provide facility security procedures, environmental control documentation, and access control measures for sanitization areas.
- **B.19** How do you segregate and secure devices awaiting sanitization to prevent unauthorized access? Provide device segregation procedures, secure storage protocols, and chain-of-custody documentation for devices in sanitization queues.
- **B.20** What backup sanitization capabilities ensure continuity of operations during equipment failures? Provide business continuity procedures, backup equipment protocols, and contingency planning documentation for sanitization operations.

#### APPENDIX C: TEST AND REPAIR

### **Testing Procedures and Protocols**

- **C.1** What systematic testing procedures evaluate the functionality and condition of incoming electronic equipment? Provide comprehensive testing protocols, equipment specifications, and standardized testing procedures for different device categories.
- **C.2** How do you determine appropriate testing depth and scope based on equipment type and intended disposition? Provide testing scope determination procedures, decision criteria, and examples of testing level assignments for various equipment types.
- **C.3** What documented test procedures ensure consistent evaluation across different equipment models and manufacturers? Provide standardized test procedures, equipment-specific testing protocols, and testing consistency verification methods.
- **C.4** How do you maintain and calibrate testing equipment to ensure accurate and reliable results? Provide testing equipment maintenance procedures, calibration schedules, and calibration records demonstrating measurement accuracy.
- **C.5** What process manages testing equipment failures and ensures alternative testing capabilities? Provide equipment failure procedures, backup testing protocols, and business continuity planning for testing operations.

## **Repair Operations and Quality Control**

- **C.6** What repair procedures address identified defects and functionality issues in electronic equipment? Provide repair operation procedures, technical specifications, and quality control protocols for repair activities.
- **C.7** How do you ensure repair technicians possess appropriate qualifications and certifications for equipment repair? Provide technician qualification requirements, certification documentation, and competency assessment records for repair personnel.
- **C.8** What parts sourcing and inventory management system supports repair operations? Provide parts sourcing procedures, inventory management protocols, and supplier qualification requirements for repair components.
- **C.9** How do you verify repair quality and equipment functionality following repair completion? Provide post-repair testing procedures, quality verification protocols, and repair effectiveness documentation requirements.
- **C.10** What process manages equipment determined to be beyond economical repair? Provide economic repair evaluation procedures, dispositioning protocols, and documentation requirements for unrepairable equipment.

# **Documentation and Tracking**

- **C.11** What documentation system records all testing activities, results, and repair actions performed on equipment? Provide documentation procedures, record templates, and examples of complete testing and repair documentation packages.
- **C.12** How do you track equipment through the entire test and repair process to maintain chain of custody? Provide equipment tracking procedures, identification systems, and chain-of-custody documentation for test and repair operations.
- **C.13** What reporting system provides customers with detailed information about testing results and repair activities? Provide customer reporting procedures, report templates, and examples of testing and repair reports provided to customers.
- **C.14** How do you maintain testing and repair records for the required retention period? Provide record retention procedures, archive management systems, and documentation demonstrating compliance with retention requirements.
- **C.15** What process manages customer-specific testing requirements and specialized testing protocols? Provide custom testing procedures, requirement management protocols, and examples of customer-specific testing implementations.

### **Quality Assurance and Continuous Improvement**

**C.16** What quality assurance program ensures consistent testing accuracy and repair quality across all operations? Provide QA procedures, audit protocols, and quality assurance audit records for test and repair operations.

**C.17** How do you identify and implement improvements to testing and repair processes based on performance data? Provide continuous improvement procedures, performance metrics, and examples of process improvements implemented in test and repair operations.

**C.18** What process manages customer complaints and issues related to testing and repair services? Provide complaint handling procedures, investigation protocols, and corrective action documentation for customer issues.

**C.19** How do you benchmark testing and repair performance against industry standards and customer expectations? Provide benchmarking procedures, performance comparison data, and improvement planning documentation based on benchmark results.

**C.20** What training and development program maintains and enhances testing and repair capabilities? Provide training procedures, skill development programs, and training records demonstrating ongoing capability enhancement for test and repair personnel.

## APPENDIX D: SPECIALTY ELECTRONICS REUSE

# **Specialty Equipment Identification and Evaluation**

- **D.1** What systematic identification process recognizes specialty electronics suitable for reuse markets? Provide identification procedures, classification criteria, and examples of specialty equipment categorization and market suitability assessments.
- **D.2** How do you evaluate the reuse potential and market value of specialty electronic equipment? Provide evaluation procedures, valuation methodologies, and market analysis documentation supporting reuse potential assessments.
- **D.3** What technical assessment procedures determine the functionality and condition of specialty electronics? Provide technical assessment protocols, testing procedures, and condition evaluation criteria specific to specialty electronic equipment.
- **D.4** How do you identify and address unique handling requirements for specialty electronics during processing? Provide specialty handling procedures, environmental control requirements, and protective measures for sensitive specialty equipment.

**D.5** What process determines appropriate refurbishment scope and requirements for specialty electronics? Provide refurbishment planning procedures, scope determination criteria, and refurbishment specification documentation.

### **Market Development and Customer Relations**

- **D.6** What market development activities identify potential customers and applications for specialty electronics? Provide market development procedures, customer identification protocols, and market research documentation supporting specialty electronics reuse.
- **D.7** How do you qualify potential customers for specialty electronics to ensure appropriate end-use applications? Provide customer qualification procedures, end-use verification protocols, and customer approval documentation.
- **D.8** What sales and marketing processes promote specialty electronics reuse opportunities? Provide marketing procedures, promotional materials, and sales process documentation for specialty electronics markets.
- **D.9** How do you provide technical support and documentation to specialty electronics customers? Provide technical support procedures, documentation requirements, and examples of technical information provided to customers.
- **D.10** What process manages specialty electronics customer relationships and ongoing support requirements? Provide customer relationship management procedures, support service protocols, and customer satisfaction assessment methods.

# **Refurbishment and Preparation**

- **D.11** What refurbishment procedures restore specialty electronics to acceptable condition for reuse markets? Provide refurbishment procedures, quality specifications, and refurbishment verification protocols for specialty electronic equipment.
- **D.12** How do you source replacement parts and components required for specialty electronics refurbishment? Provide parts sourcing procedures, supplier qualification requirements, and parts authenticity verification protocols for specialty components.
- **D.13** What quality control procedures ensure refurbished specialty electronics meet customer requirements and safety standards? Provide quality control procedures, testing protocols, and quality assurance documentation for refurbished specialty equipment.
- **D.14** How do you handle specialty electronics requiring specialized expertise or external refurbishment services? Provide external service procedures, service provider qualification requirements, and quality oversight protocols for outsourced refurbishment.

**D.15** What documentation accompanies refurbished specialty electronics to support customer applications? Provide documentation procedures, technical documentation requirements, and examples of documentation packages provided with refurbished equipment.

## **Logistics and Distribution**

- **D.16** What packaging and shipping procedures protect specialty electronics during transportation to customers? Provide packaging procedures, protection specifications, and shipping protocols specific to specialty electronic equipment transportation.
- **D.17** How do you coordinate delivery timing and logistics for specialty electronics customers? Provide logistics coordination procedures, delivery scheduling protocols, and customer communication procedures for specialty equipment shipments.
- **D.18** What process manages specialty electronics inventory and availability for customer orders? Provide inventory management procedures, availability tracking systems, and order fulfillment protocols for specialty electronics.
- **D.19** How do you handle international shipments of specialty electronics and associated regulatory requirements? Provide international shipping procedures, regulatory compliance protocols, and export documentation requirements for specialty electronics.
- **D.20** What returns and warranty procedures support specialty electronics customers post-delivery? Provide returns procedures, warranty policies, and customer support protocols for specialty electronics sales and services.

## **APPENDIX E: MATERIALS RECOVERY**

# **Material Identification and Segregation**

- **E.1** What systematic material identification process recognizes and categorizes recoverable materials from electronic equipment? Provide material identification procedures, categorization criteria, and examples of material classification documentation.
- **E.2** How do you segregate different material types to optimize recovery efficiency and maintain material purity? Provide segregation procedures, contamination prevention protocols, and material purity specifications for different recovery streams.
- **E.3** What process identifies and separates hazardous materials requiring special handling during recovery operations? Provide hazardous material identification procedures, segregation protocols, and special handling requirements for hazardous material recovery.

- **E.4** How do you ensure complete material characterization before processing for recovery? Provide material characterization procedures, analysis requirements, and characterization documentation for materials entering recovery processes.
- **E.5** What quality control procedures verify material identification accuracy and segregation effectiveness? Provide quality control procedures, verification protocols, and audit documentation demonstrating material identification and segregation accuracy.

### **Recovery Processing and Technologies**

- **E.6** What mechanical processing technologies do you employ for material recovery from electronic equipment? Provide processing technology descriptions, operational procedures, and performance specifications for mechanical recovery systems.
- **E.7** How do you optimize recovery processes to maximize material yield and minimize waste generation? Provide process optimization procedures, yield analysis methods, and waste minimization strategies for recovery operations.
- **E.8** What process controls ensure consistent recovery performance across different material types and equipment feeds? Provide process control procedures, monitoring protocols, and performance consistency documentation for recovery operations.
- **E.9** How do you handle material recovery equipment maintenance and performance monitoring? Provide equipment maintenance procedures, performance monitoring protocols, and maintenance records demonstrating equipment reliability.
- **E.10** What safety and environmental controls protect personnel and prevent environmental releases during recovery processing? Provide safety procedures, environmental control systems, and incident prevention protocols for recovery operations.

# **Product Quality and Specifications**

- **E.11** What quality assurance program ensures recovered materials meet customer specifications and market requirements? Provide quality assurance procedures, specification compliance protocols, and quality verification documentation.
- **E.12** How do you test and verify the purity and characteristics of recovered materials? Provide testing procedures, analytical methods, and quality testing records demonstrating recovered material characteristics.
- **E.13** What process manages material contamination issues and quality non-conformances? Provide contamination management procedures, non-conformance handling protocols, and quality issue resolution documentation.

**E.14** How do you maintain consistent recovered material quality across different processing campaigns? Provide quality consistency procedures, batch control protocols, and quality trend analysis for recovered materials.

**E.15** What customer communication process addresses recovered material specifications and quality requirements? Provide customer communication procedures, specification agreements, and quality reporting protocols for recovered material customers.

### **Market Development and Sales**

**E.16** What market development activities identify customers and applications for recovered materials? Provide market development procedures, customer identification methods, and market analysis documentation supporting recovered material sales.

**E.17** How do you qualify potential customers for recovered materials and verify end-use applications? Provide customer qualification procedures, end-use verification protocols, and customer approval documentation for recovered materials.

**E.18** What pricing and contract management procedures support recovered material sales? Provide pricing procedures, contract templates, and sales agreement management protocols for recovered material transactions.

**E.19** How do you track recovered material sales and customer satisfaction to support market development? Provide sales tracking procedures, customer feedback systems, and market performance analysis for recovered material sales.

**E.20** What process manages long-term customer relationships and market development for recovered materials? Provide relationship management procedures, market development strategies, and customer retention protocols for recovered material markets.

## **APPENDIX F: BROKERING**

## **Broker Authorization and Qualification**

**F.1** What formal authorization system governs brokering activities and ensures compliance with applicable regulations? Provide broker authorization procedures, regulatory compliance documentation, and evidence of required permits or licenses for brokering operations.

**F.2** How do you qualify and verify the credentials of downstream facilities involved in brokered transactions? Provide facility qualification procedures, due diligence protocols, and qualification documentation for facilities in brokering arrangements.

- **F.3** What ongoing monitoring program ensures continued compliance and performance of brokered facility partners? Provide monitoring procedures, audit schedules, and monitoring reports demonstrating continued facility compliance verification.
- **F.4** How do you manage broker relationship agreements and contractual obligations with facility partners? Provide contract management procedures, agreement templates, and executed contracts demonstrating broker relationship management.
- **F.5** What process manages broker authorization changes and facility partner modifications? Provide change management procedures, approval protocols, and documentation of recent broker relationship changes.

### **Material Flow and Documentation Management**

- **F.6** What comprehensive documentation system tracks all materials involved in brokering transactions from receipt through final disposition? Provide documentation procedures, tracking systems, and examples of complete material tracking records for brokered materials.
- **F.7** How do you ensure accurate and complete manifesting and shipping documentation for all brokered materials? Provide manifesting procedures, documentation templates, and examples of complete shipping documentation packages for brokered transactions.
- **F.8** What chain-of-custody protocols maintain material tracking integrity throughout brokering operations? Provide chain-of-custody procedures, transfer documentation, and custody transfer records for brokered materials.
- **F.9** How do you verify that brokered materials reach their intended destinations and receive appropriate processing? Provide destination verification procedures, processing confirmation protocols, and verification documentation for brokered material dispositions.
- **F.10** What record retention system maintains brokering documentation for audit and regulatory compliance purposes? Provide record retention procedures, archive management systems, and documentation demonstrating compliance with retention requirements.

# **Customer and Supplier Management**

- **F.11** What customer onboarding process ensures appropriate service delivery and regulatory compliance for brokering clients? Provide customer onboarding procedures, service agreements, and compliance verification protocols for brokering clients.
- **F.12** How do you communicate brokering service capabilities and limitations to potential customers? Provide service communication procedures, capability descriptions, and customer education materials for brokering services.

- **F.13** What process manages customer-specific requirements and special handling needs in brokering operations? Provide custom requirement procedures, special handling protocols, and examples of customer-specific service implementations.
- **F.14** How do you provide customers with appropriate reporting and documentation for brokered materials? Provide customer reporting procedures, report templates, and examples of brokering service reports provided to customers.
- **F.15** What complaint handling and issue resolution process supports brokering service customers? Provide complaint procedures, investigation protocols, and corrective action documentation for brokering service issues.

### **Financial and Risk Management**

- **F.16** What financial management system handles payments, invoicing, and financial reconciliation for brokering operations? Provide financial management procedures, invoicing protocols, and financial reconciliation systems for brokering transactions.
- **F.17** How do you assess and manage financial risks associated with brokering transactions and facility partners? Provide risk assessment procedures, financial evaluation protocols, and risk management strategies for brokering operations.
- **F.18** What insurance and liability coverage protects brokering operations and customer interests? Provide insurance documentation, coverage specifications, and liability management procedures for brokering activities.
- **F.19** How do you manage pricing and cost structures for brokering services to ensure sustainable operations? Provide pricing procedures, cost analysis methods, and pricing structure documentation for brokering services.
- **F.20** What financial reporting and performance analysis supports brokering operation management and improvement? Provide financial reporting procedures, performance metrics, and financial analysis documentation for brokering operations.

# **APPENDIX G: PHOTOVOLTAIC (PV) MODULES**

# **PV Module Reception and Initial Processing**

**G.1** What specialized reception procedures handle incoming photovoltaic modules to prevent damage and ensure worker safety? Provide PV module handling procedures, safety protocols, and specialized equipment requirements for PV module reception and initial processing.

- **G.2** How do you identify different PV module types and technologies to determine appropriate processing pathways? Provide PV module identification procedures, technology classification systems, and processing pathway determination protocols.
- **G.3** What initial assessment process evaluates PV module condition and determines reuse potential versus recycling requirements? Provide assessment procedures, evaluation criteria, and disposition decision protocols for incoming PV modules.
- **G.4** How do you handle PV modules containing hazardous materials or requiring special processing considerations? Provide hazardous material handling procedures, special processing protocols, and safety measures for PV modules with hazardous components.
- **G.5** What documentation system tracks PV modules through reception, assessment, and initial processing activities? Provide tracking procedures, documentation templates, and chain-of-custody protocols specific to PV module processing.

### **PV Module Disassembly and Material Recovery**

- **G.6** What systematic disassembly procedures safely separate PV module components for material recovery? Provide disassembly procedures, safety protocols, and component separation techniques for different PV module types.
- **G.7** How do you recover valuable materials from PV modules while minimizing hazardous waste generation? Provide material recovery procedures, hazardous waste minimization strategies, and recovery optimization protocols.
- **G.8** What specialized equipment and technologies support PV module disassembly and material recovery operations? Provide equipment specifications, operational procedures, and technology descriptions for PV module processing equipment.
- **G.9** How do you handle glass recovery from PV modules to maximize material value and minimize contamination? Provide glass recovery procedures, contamination prevention protocols, and glass quality specifications for PV module glass recovery.
- **G.10** What process manages metal recovery from PV module frames, junction boxes, and internal components? Provide metal recovery procedures, segregation protocols, and quality specifications for recovered metals from PV modules.

# **Environmental and Safety Controls**

**G.11** What environmental control systems prevent releases of hazardous materials during PV module processing? Provide environmental control procedures, emission monitoring systems, and release prevention protocols for PV module operations.

- **G.12** How do you protect workers from potential exposure to hazardous materials in PV modules? Provide worker protection procedures, personal protective equipment requirements, and exposure monitoring protocols for PV module processing.
- **G.13** What waste management procedures handle process residues and non-recoverable materials from PV module processing? Provide waste management procedures, disposal protocols, and waste minimization strategies for PV module processing residues.
- **G.14** How do you manage air emissions and dust control during PV module disassembly operations? Provide air emission control procedures, dust control systems, and monitoring protocols for PV module processing operations.
- **G.15** What emergency response procedures address potential incidents involving PV module processing operations? Provide emergency response procedures, incident management protocols, and emergency equipment requirements for PV module operations.

# **Quality Control and Product Management**

- **G.16** What quality control procedures ensure recovered materials from PV modules meet market specifications? Provide quality control procedures, testing protocols, and quality assurance documentation for PV module recovered materials.
- **G.17** How do you test and verify the characteristics of materials recovered from PV module processing? Provide testing procedures, analytical methods, and quality verification protocols for PV module recovered materials.
- **G.18** What process manages quality non-conformances and contamination issues in PV module material recovery? Provide non-conformance procedures, contamination management protocols, and quality issue resolution procedures.
- **G.19** How do you package and prepare recovered materials from PV modules for shipment to customers? Provide packaging procedures, material preparation protocols, and shipping specifications for PV module recovered materials.
- **G.20** What customer communication process addresses specifications and applications for materials recovered from PV modules? Provide customer communication procedures, technical support protocols, and application guidance for PV module recovered materials.

# **ASSESSMENT COMPLETION CHECKLIST**

# **Documentation Requirements**

Management Approval: \_\_\_\_\_

□ All questions answered with specific, measurable responses □ Supporting documentation identified and
available for audit review
□ REC mapping completed for all applicable questions □ Gap analysis completed identifying areas
requiring improvement   Corrective action plans developed for identified gaps   Implementation
timelines established for gap remediation   Management review and approval of assessment results
completed   Self-assessment results documented and filed for audit reference
Next Steps
1. <b>Gap Remediation</b> : Address all identified gaps through documented corrective actions
2. Pre-Audit Preparation: Organize all supporting documentation for auditor review
3. Internal Audit: Conduct internal audit to verify gap remediation effectiveness
4. Certification Application: Submit formal certification application with supporting documentation
5. External Audit: Participate in certification audit conducted by accredited certification body
Assessment Completion Date:
Prepared By:
Reviewed By: