Seafood Processing Standard - Core

Issue 6.0

05-NOV-2025

Global Seafood Alliance Certification Standard

Contents

A Summary of Key Changes from Issue 5.1 to 6.0

- The structure of the standard has been reformatted to include a core requirement for all processing plants. Separate modules have been created to accommodate production processes that extend beyond the core requirements. Any modules within a facility's scope will be assessed as part of the SPS audit. (All Sections)
- Edited the text of the clauses for clarity of language (All Sections)
- Removed duplicate clauses (All Sections where applicable)
- Structured clauses to improve auditability (All Clauses where applicable)
- Added additional regulatory requirements to section C1
- Added clause requirements to include elements of food safety culture to section C2
- Updated standard to include new GFSI V2020.1 requirements
- New guidance has been written for 6.0
- Traceability requirements have been revised to improve efficiency of the audit (C6)
- Environmental verification parameters have been revised C3
- The water testing requirements have been modified (Section 3.11)
- The social accountability and employee health requirements have been augmented to reflect the most recent best practices. (Social Responsibility Module and Enhanced Social Module)
- Added clarification and guidance on laboratory testing (Section 4.5)
- Employee training requirements have been consolidated
- Effluent Values required for facilities discharging into natural bodies of water have been revised
- Dissolved Oxygen values for Effluent samples have been changed from an optional data point to a required monitoring point.
- Requirements on finished product testing have been revised to be based on risk
- Development of an Enhanced Social Module as an add-on module to allow facilities to achieve an exceptional Social and Ethical rating through certification recognition.

Introduction

Founded in 1997, the Global Seafood Alliance (GSA) is an international non-governmental organization dedicated to advocacy, education, and leadership in responsible aquaculture. GSA engages stakeholders worldwide who are dedicated to advancing environmentally and socially responsible aquaculture practices.

Through the development of the Best Aquaculture Practices (BAP) certification standards, GSA has become the leading standards-setting organization for seafood (www.globalseafood.org and www.bapcertification.org.)

Background to the Standard and Standard Scope

This document is the Seafood Processing Standard (SPS) Core – Issue 6.0 and is to be audited jointly with various SPS Modules based on the scope of processing facilities applying for certification. The Standard and its modules replace the Best Aquaculture Practices (BAP) Seafood Processing Standard – Issue 5.1. The full content of the Seafood Processing Standard 6.0 includes:

- Food Safety Management and Related Requirements (Core C1-C4)
- Effluent Management Requirements (Core C1)
- Water Quality Testing Requirements (Core C3)
- Environmental Management Requirements (Core C5)
- Traceability Requirements (Core C6)
- Glossary
- Animal Welfare Module
- Effluent Discharge Module
- Finished Product Testing Module
- Outsourcing Module
- Product Identity Preservation Module
- Environmental Module for Remote Isolated Wild-Capture Processors
- Social Responsibility Module (mandatory unless Enhanced Social Module is selected)
- Enhanced Social Module (voluntary add-on)

Facilities shall be assessed to all SPS Core requirements, plus all SPS modules that fall within the scope of the seafood processing that is undertaken at that facility. Compliance with all requirements (full scope) is required for certification, unless preauthorized by GSA. Facilities may also elect to be assessed and certified to the Enhanced Social Responsibility Module when, or after, applying for SPS Issue 6.0 Certification. Please see the Enhanced Social Responsibility Module for additional information.

The objective of the Food Safety Management and Related Requirements of the Seafood Processing Standard is to specify the food safety and quality criteria required to be in place within a seafood manufacturing or processing organization to achieve certification to the SPS. The format and content of the Standard is designed to allow an assessment of a facility's premises and operational systems and procedures by a competent GSA-approved third-party Certification Body.

The Seafood Processing Standard covers nearly all aquaculture and wild-caught species as follows:

- Finfish
- Crustaceans
- Mollusks
- Echinoderms
- Medusozoans
- Frogs

The scope of operations covered under this standard includes only those processes that are performed in land-based facilities and operated by the facility.

Acknowledgements

An expert group (Processing Technical Standards Committee) developed and endorsed the Standard with representatives throughout the supply chain and interested parties including industry associations, processors, producers, regulators, non-governmental organizations and conformity assessment and standards experts.

GSA is grateful to the members of the Processing Technical Standards Committee who created the original Seafood Processing Standard and to the other specialists that provided valuable input during the review process:

Seafood Processing Standard 6.0 Technical Committee:

Michael Platt, GSA SPS 6.0 Committee Chair
Francisco Aldon, Marin Trust
Ashley Apel, Conservation International
Syamsul Arifin, Global Seafood Alliance
Viviana Cachicas, Food Microbiology, Public Health Institute of Chile (www.ispch.cl)
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Normative Documents

This Standard will be regularly reviewed to ensure its relevance with legislation and market requirements. The normative documents from which the initial standard (or subsequent versions as noted) were drawn upon were/are:

- Acidified Foods 21 CFR 114
- ADFO Cured, Salted, and Smoked Fish Establishments Good Manufacturing Practices
- Best Available Techniques in fish processing Industry, Nordic Perspective
- Best Available Techniques (BAT) Reference Document for the Food, Drink, and Milk Industry: Industrial Emissions Directive 2010/75/EU Integrated Pollution Prevention and Control (2019)
- BRCGS Ethical Trade and Responsible Sourcing Issue 2
- Code of Hygienic Practice for Aseptically Processed and Low Acid Foods CAC/RCP 40-1993
- Ten fundamental ILO conventions on which the Social Component of the SPS Standard is based.
    - Freedom of Association and Protection of the Right to Organize Convention, 1948 (No. 87)
    - Right to Organize and Collective Bargaining Convention, 1949 (No. 98)
    - Forced Labor Convention, 1930 (No. 29)
    - Abolition of Forced Labor Convention, 1957 (No. 105)
    - Minimum Age Convention, 1973 (No. 138)
    - Worst Forms of Child Labor Convention, 1999 (No. 182)
    - Equal Remuneration Convention, 1951 (No. 100)
    - Discrimination (Employment and Occupation) Convention, 1958 (No. 111)
    - Occupational Safety and Health Convention, 1981 (No. 155)
    - Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)
- ESSA – European Guide to Good Practice for smoked and /or Salted and or Marinated Fish
- Ethical Trading Initiative 01 April 2014
- FDA Seafood HACCP Regulation, 21CFR 123 and GMP's 117
- Global Food Safety Initiative Guidance Document – V2020
- ISO 9001:2015
- ISO 19011:2018
- ISO/IEC 17021:2015
- ISO/IEC 17065:2012
- NSSP Guide for the Control of Molluscan Shellfish: 2023 Revision
- PAS 1550:2017 Exercising due diligence in establishing the legal origin of seafood products and marine ingredients- Importing and processing – Code of practice
- Ready-To-Eat Seafood Pathogen Control Guidance Manual (*Listeria monocytogenes and Salmonella spp.)* Ready to Eat Working Group of the National Fisheries Institute-March 2019
- Sedex Members Ethical Trade Audit (SMETA) Measurement Criteria Version 6.0 April 2017
- SSCI Benchmarking Requirements PART II – Requirements for the Management of Schemes Version 1.1 All Scopes
- SSCI Benchmarking Requirements Version 1.1 Part I – Benchmarking Process
- Thermally processed low-acid foods packaged in hermetically sealed containers 21 CFR 113.
- USFDA Fish and Fishery Products Hazards and Controls Guidance Fourth Edition – June 2022

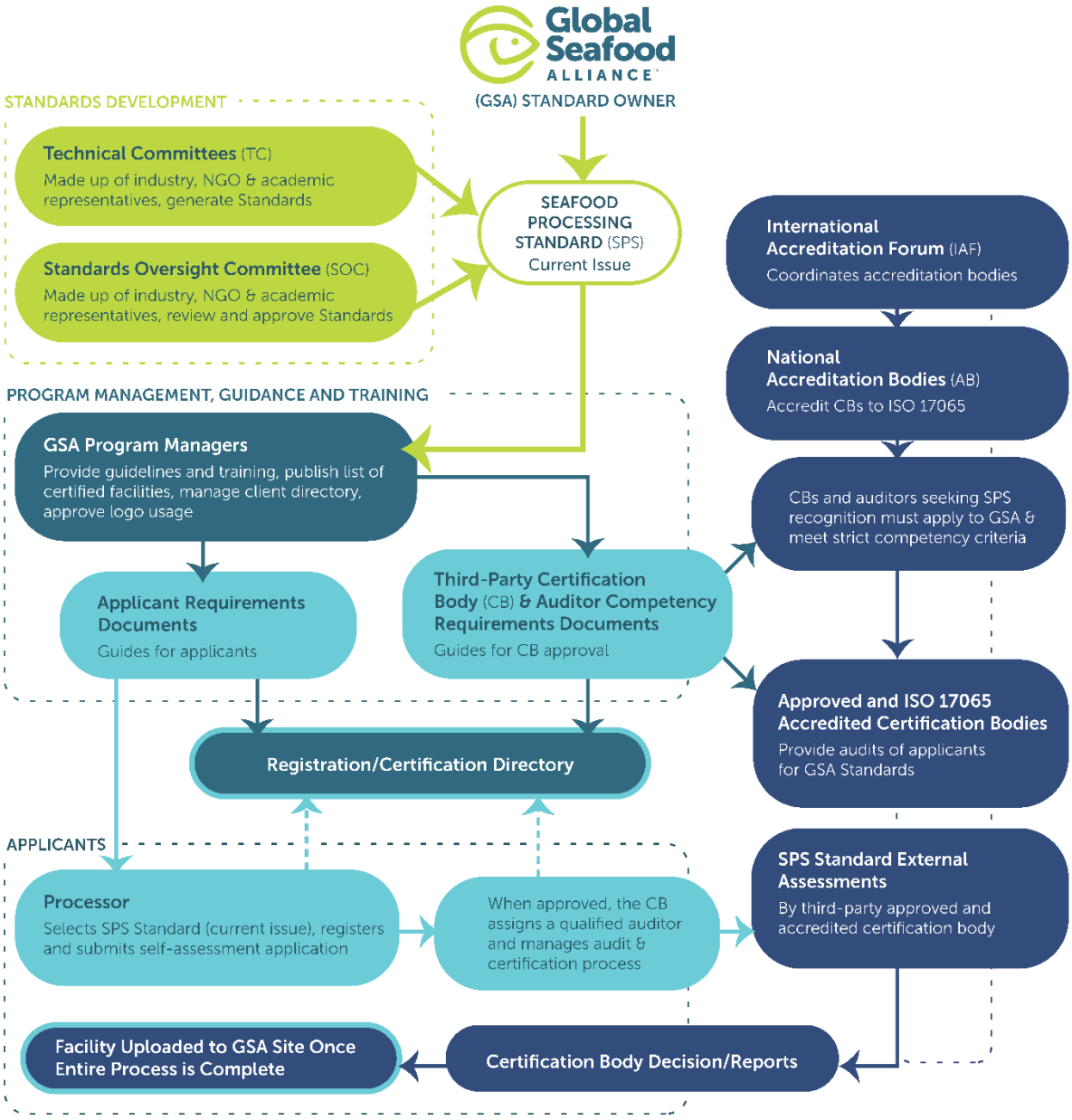
Program Management

The Global Seafood Alliance is the Program Manager for the Seafood Processing Standard (SPS). Facilities that wish to be certified against the Seafood Processing Standard must apply online via the Certification Portal available at www.bapcertification.org, (select "Certification Portal" and follow the on-screen directions to create an account and apply).

Currently certified facilities must re-apply to renew their certification annually through the certification portal.

Mailing Address: 85 New Hampshire Avenue, Suite 200, Portsmouth, New Hampshire 03801 USA
Main Office Telephone: +1-603-317-5000
For questions regarding applications: certification@globalseafood.org
Website: globalseafood.org
bapcertification.org

SPS Development and Certification Process



Assessments

New applicants are advised to carry out a self-assessment against the standard to ascertain their readiness for a third-party Certification Body (CB) audit. Applicants are to rectify any deficiencies identified as part of their self-assessment prior to the third-party CB audit.

Once an applicant's self-assessment has been carried out and is satisfied that all deficiencies identified have been corrected the facility can proceed to Certification.

To become certified Applicants must be able to demonstrate compliance with this Standard, through an independent third-party on-site assessment by a GSA Approved CB.

The CB must be approved by GSA and be accredited to ISO/IEC 17065:2012 (Conformity assessment — Requirements for bodies certifying products, processes, and services) by an Accreditation Body who is a Member of the International Accreditation Forum and a signatory to the Multilateral Recognition Agreement.

The chosen Certification Body will formulate an agreement between the Applicant and the Certification Body detailing the requirements and commitments needed from the Applicant.

The GSA will maintain a list of approved Certification Bodies.

Facilities that are newly built or pre-existing facilities that an entity is moving the production operation into must ensure that the requirements of the Standard are well implemented before they proceed to an initial assessment by the third-party Certification Body. Such facilities must be in operation for at least 3 months from commencing production to ensure that they can provide documentation and records to include all annual and semi-annual requirements to demonstrate full compliance to the Core Standard and applicable modules during the assessment. Examples of annual and semiannual records and documentation that shall be available for the initial audit include:

- Water testing results
- Ice testing results
- Effluent testing (if applicable)
- Environmental testing
- Mock recall
- Finished product testing (if applicable)

Assessment Frequency

Audits to the Seafood Processing Standard are conducted at a frequency of once per annum. However, re-audits, short notice, or unannounced audits shall also be conducted at GSA and Certification Body discretion where facility compliance concerns arise.

Scope of Audit

Duration of Assessments, and Non-Conformities

The duration of an assessment is dependent on several factors such as the size of the operation, number of workers, process lines, HACCP plans, and/or number of species processed. In most cases the duration would be a minimum of two days (all days on site, or combined desktop review in advance before time on site). In all cases it shall be sufficient to ensure that a full assessment against the full requirements of the SPS is achieved.

The GSA will insist upon accurate assessments by the Certification Body with a duration sufficient to ensure integrity of the audit and achieve the audit objectives.

The Certification Body shall be mindful that the assessment format is one of systems review and physical inspection of the site and manufacturing process. Time allocation during the assessment shall be such to

provide sufficient and proportionate time for each activity to be carried out in full and where appropriate, additional time given when the Auditor is required to carry out further investigation.

All requirements in the Standard shall be addressed. As with other GSA-BAP standards, the audit against the SPS will consist of the elements cited in accordance with ISO19011.

- Opening meeting
- Site assessment (including dormitory and canteen, if applicable)
- Collection of any necessary samples (product and effluent)
- Worker interviews
- Review of management systems / records and procedures
- Closing meeting
- Provision of non-conformance summary to the facility

Figure 1: Any non-conformity raised during the assessment will be recorded by the auditor as either:

Severity Level	Definition	Required Action
Critical	Where there is a critical failure to comply with a food safety, social compliance or legal issue or a risk to the integrity of the scheme.	The auditor will immediately inform the Certification Body, who will inform the GSA. Immediate temporary suspension may ensue pending clarifications and a re-audit may be necessary.
Major	Where there is a substantial failure to meet the requirements and/or intent of any clause in the Standard but there is no food safety risk, social compliance, legal issue, or immediate risk to the integrity of the scheme	Objective evidence verifying the proper implementation of corrective action and closing of non-conformities shall be submitted to the Certification Body in accordance with GSA certification management rules
Minor	Where absolute compliance with requirements and/or the intent of any clause in the Standard has not been demonstrated. The matter does not rise to the level of Major or Critical and tends to be lower risk issues or isolated instances rather than patterns. Not indicative of an overall breakdown in compliance and systems.	Objective evidence verifying the proper implementation of corrective actions and closure of non-conformities shall be submitted to the Certification Body in accordance with GSA certification management rules.

At the closing meeting, the Auditor shall present his/her findings and discuss all non-conformities that have been identified during the assessment but shall not make any comment on the likely outcome of the Assessment. A written summary of the non-conformities discussed at the closing meeting shall be agreed upon and signatures from the facility representative obtained. A copy of the non-conformity report must be left with the facility prior to the auditor departing the facility.

The facility shall provide the CB, in accordance with GSA-BAP certification management rules, suitable and adequate objective evidence that corrective action has been implemented to rectify the non-conformity. This evidence shall also address root cause and future prevention. The evidence will be reviewed, and the CB will respond either confirming closure of the non-conformity or requesting further evidence.

The facility must submit evidence to the CB to close out all non-conformities within 35 calendar days. Failure to close out non-conformities in the given timeframe will result in certification not being granted or continued, and facilities will be required to re-apply for a full assessment for certification (refer current issue of GSA Policy on Supplementary Audits of Facilities).

Audit Reporting and the Certification Decision

The Auditor will provide a full report of the assessment, including the details of any non-conformities issued. The Auditor will submit the report to the Certification Body. The report shall include brief statements of objective evidence of both conformity, and non-conformity.

The report shall follow the format specified by the GSA. The report shall be issued in accordance with the GSA Report Guidelines. Within the Assessment Report there shall be a record of the duration of the assessment (expressed as hours) and any reason for the lengthening or shortening of the duration from that which is typical.

The audit report along with the corrective actions submitted by the facility will be evaluated by a Certification Committee of the CB, who will make the final certification decision post closure of all non-conformities. The timelines for audit, closure of non-conformities, technical review and certification decision are as specified in the Requirements for Certification Bodies Offering Certification Against the Criteria of the Global Seafood Alliance Best Aquaculture Practices Standards. To achieve certification to the Seafood Processing Standard, the applicant facility must meet all of the requirements of the Standard.

The Applicant who commissioned the Assessment owns the Assessment Report. However, a written agreement shall be in place between the GSA-approved Certification Body and the auditee for the authorization of the provision of a Report to the GSA.

When audit reports are sent to the Applicant, they shall be in a secure (PDF) format to prevent modification.

The Assessment report will be considered by a Certification Committee of the Certification Body, who will make the final certification decision.

Appeals

The Applicant has the right to appeal assigned non-conformity and/or the severity of the non-conformity as well as the certification decision of the Certification Body. Appeals should be made in writing within seven days of the Certification decision.

A full response will be given by a Certification Body Manager independent of the auditor and Certification Committee.

GSA Certification

To achieve Certification to the Seafood Processing Standard, the Applicant must meet the applicable requirements of all components of the Seafood Processing Standard Core and any applicable modules.

The Four Pillars:

- Food Safety
- Social Responsibility
- Environmental
- Animal Health and Welfare

C. SPS Core Standard Requirements

C1 Regulatory Management

1.1 License to Operate

1.1.1 The facility shall demonstrate that they are entitled to process and produce seafood at the site applied for. This includes documents to verify the following:

1.1.1.1 Legal land and water use by the facility.

1.1.1.2 Current business and operating licenses.

1.1.1.3 Compliance to applicable environmental regulations for construction and operation.

1.1.1.4 No Discharge into Natural Water Bodies: Facilities that do not discharge any effluents directly or indirectly into naturally occurring water bodies and comply with all other SPS requirements are eligible for GSA certification.

1.1.1.5 Discharge to Municipal or Private Treatment Plants: Facilities that have a valid contract with a municipality or industrial park facility that assumes the responsibility to treat and dispose of effluents in compliance with government, regional and local regulations are eligible for GSA certification if all other SPS requirements are met.

1.1.1.6 That the facility is aware of, and complies with, all current relevant legislation of both the country they produce seafood in, and the countries they export to.

1.1.1.7 Products shall be properly labeled with all information, including allergens, as required by local legislation and legislation of the country of destination, including documentation to support any substantiated claims. Products shall also supply information to ensure safe handling, storage, preparation, and use of the product along the supply chain or by the consumer.

1.1.1.8 Live seafood, including but not limited to finfish and molluscan shellfish, shall be purchased only from commercial sources that are licensed according to applicable laws and regulations, and harvested legally.

C2 Quality Management System (QMS)

2.1 General Requirements

2.1.1 The facility shall have a QMS that is documented, authorized by senior management, effectively implemented, maintained, and designed to continually improve the food safety management system. The elements of the QMS shall include elements of a food safety culture which shall include at a minimum:

- Communication
- Training
- Mechanism for feedback from employees
- Performance of food safety related processes

2.1.2 The QMS shall be reviewed and updated after a food safety incident or product recall, with a minimum frequency of annually.

2.1.3 The facility shall define, document, and ensure that quality and food safety objectives/Key Performance Indicators are monitored with measurable outcomes. Monitoring results shall be presented to management during system reviews. Management shall implement the policies and procedures to support the development, implementation, and enhancement of a food safety culture. The food safety culture shall be initiated by the senior management and shall be integrated throughout the organization.

2.1.4 Facilities shall have a copy of the current version of the SPS that the facility is being audited against on site.

2.2 Quality Manual

2.2.1 The facility shall have a Quality Manual which incorporates Food Safety that is readily available to all personnel involved in quality management and shall:

2.2.1.1 Include controls that address all requirements of the SPS, including all applicable modules.

2.2.1.2 Include the products to be processed and shall also include documented procedures or specific reference to them.

2.2.1.3 Clearly define all the quality and food safety attributes for all raw material received, and finished products produced, that shall be monitored and controlled to ensure conformance to legal requirements and customer and facility specifications.

2.2.1.4 Include at a minimum: definition of sampling size, testing frequency, procedures, maximum or minimum tolerance levels, corrective action, responsible personnel, and record-keeping requirements associated with all of the quality management procedures.

2.3 Quality Management System Policy Statement

2.3.1 As part of the Quality Manual, the facility shall have a clearly defined and documented food safety and Quality Management System Policy statement, authorized by senior management, that reflects its commitment to the entire scope of the SPS, including food safety culture and the relevant modules.

2.4 Management Responsibility and Organizational Structure

2.4.1 The facility shall have an organizational chart that reflects the current plant management and members of the HACCP team, and at a minimum, those workers and their back-up personnel responsible for compliance with quality assurance, legality, and food safety requirements.

2.4.2 The facility shall also define and document job functions, responsibilities, and reporting relationships of at least those workers whose activities affect product quality, legality, and food safety.

2.4.3 The facility shall identify the membership and competency of the HACCP team. Competency shall be demonstrated through documented evidence of HACCP training and training effectiveness.

2.5 Management Commitment and Review

2.5.1 The facility's senior management shall demonstrate their commitment to the development, and continuous improvement to the QMS, and provide all the resources needed for implementation and maintenance.

2.5.2 Management reviews shall include senior management and occur at planned intervals - at a minimum annually to ensure the plans, procedures and systems are up-to date and continue to be effective and comply with the full scope of SPS including relevant modules.

2.5.3 Minutes of the management review meeting shall be maintained and available for review.

2.6 Purchasing & Specifications – Items

2.6.1 The facility shall have written specifications and document all items purchased that impact food safety, regulatory requirements, and quality. The purchasing process shall be controlled by designated personnel to ensure these items conform to requirements.

2.6.1.1 The facility shall demonstrate control through, at a minimum: the appointment of designated purchasing personnel and written purchasing procedures. (See also 2.7 – "Supplier Approval and Performance Monitoring").

2.6.2 Specifications shall be kept up-to-date and periodically reviewed, which shall occur at a minimum annually and be readily available for designated workers.

2.7 Supplier Approval and Performance Monitoring

2.7.1 The facility shall exercise control over any products (e.g., raw material, packaging, additives, and ingredients) and service providers that may have an impact on food safety, legality, quality, environmental impact, animal welfare, traceability, and social responsibility.

2.7.2 The facility shall have a supplier approval program which includes a list of approved suppliers and service providers. This list shall be kept up-to-date and reviewed, at a minimum, annually.

2.7.3 The supplier of products and services approval programs shall include all suppliers described in 2.7.1. The program shall also include criteria for approval, and the facility's policy and/or procedure for temporary use of unapproved suppliers.

2.7.4 The facility shall have in place a procedure for regularly monitoring the performance of suppliers of products and services. This monitoring shall be conducted at a frequency that is based on the risk level of the products or services supplied. Performance criteria shall be defined as well as actions to be taken where performance does not meet criteria. The results of the supplier performance assessments and follow-up actions shall be recorded.

2.7.5 The primary facility shall not purchase the peeling and de-heading of shrimp from informal entities known as "peeling or de-heading sheds". To be eligible for SPS certification, peeling and/or de-heading of shrimp shall only occur in establishments with valid government approvals and with legal, food safety, environmental and social criteria in place which shall be subject to audits as stated in Outsourcing module clause OSP1. Such establishments are either:

- owned by the applicant facility or;
- completely controlled by the applicant facility with valid agreements in place or;
- are located onsite of the primary facility or located within a 90 minute or less commute to the primary facility and included as part of the scope of the annual SPS audit

2.8 General Documents Requirements

2.8.1 The facility shall have a written document control procedure that ensures all documents and procedures necessary for compliance with the full scope of the Seafood Processing Standard, including modules, are implemented and controlled.

2.9 Procedures

2.9.1 The facility shall prepare and implement standard operating procedures, quality procedures, food safety management procedures, social accountability procedures, animal welfare procedures and work instructions for all processes and operations having an effect on product safety, legality and quality.

2.10 Record Keeping

2.10.1 The facility shall maintain records that demonstrate compliance to the full scope of the SPS and relevant modules. Records, including electronic records, shall be complete, securely stored, and available as needed by workers and auditors.

2.10.2 Records shall be retained for a time period required to meet customer, regulatory, and legal requirements. At a minimum this shall be for the shelf life of the product plus one year and an additional two years if processing Low Acid Canned Foods. Records shall be stored at an accessible location.

2.10.3 All monitoring and corrective action records shall be reviewed by a qualified individual other than the person completing the records.

2.10.4 All records and other documentation shall be accurate and not show evidence or indication of falsification or adulteration.

2.10.5 Where local, national, or international government auditing or inspection programs exist, these records shall be made available for review.

2.10.6 HACCP Records shall be reviewed by a HACCP-trained individual.

2.11 Corrective and Preventive Action

2.11.1 In the event of any non-conformity, the facility shall ensure that procedures for the documentation and implementation of corrective action are prepared and documented. These shall cover the full scope of the SPS and relevant modules and shall address how future reoccurrences shall be prevented.

2.11.2 All Non-conformities shall be recorded, and the cause(s) of the problem investigated to ensure that a documented response is taken by facility personnel.

2.11.3 The effectiveness of corrective and preventative actions shall be included in a regular review of activities and systems. If time frame scales for actions are not met, it is required that the reason for this is recorded.

2.12 Control of Non-Conformity

2.12.1 The facility shall have a documented procedure to ensure that any product which does not conform to requirements is clearly identified and controlled to prevent unintended use or delivery. This shall include all products that do not conform to food safety, quality, legality, or customer requirements. The disposition of non-conforming product shall be determined by authorized personnel and documented.

2.13 Serious Incident Management

2.13.1 The facility shall have a documented business continuity procedure that describes how product safety and quality shall be maintained in the event of a serious incident.

2.13.2 Serious incidents that occur at the facility shall be documented. Records of product handling and status during and after the incident shall be maintained. This shall cover at a minimum how product integrity, worker safety and key facility operations will be maintained.

2.14 Product Recall and Withdrawal Plan

2.14.1 There shall be a written Recall and Withdrawal Plan that addresses how product that has been shipped shall be identified, located, and recalled or withdrawn in the event of rejection or non-conformity related to food safety, legality, or quality. This plan shall also ensure that non-conforming or recalled products are not mixed with conforming products or released without proper authorization.

2.14.2 The Recall Plan shall list all personnel that are part of the recall team, including the recall teams out of office contact numbers and responsibilities. The plan shall include a list of all key external regulatory agencies that require notification in the event of product recall. The facility shall notify the certification body and SPS Program owner (GSA) directly within 24 hours of a recall related to food safety.

2.14.3 The Recall and Withdrawal Plan shall be tested at a minimum annually through a "mock recall" test. Documented results shall identify, at a minimum: the "mock" incident, identification of all products affected and where it was shipped, how customers that received it were (or would have been) notified, and what percentage of product was successfully identified to be "recalled/withdrawn." The time taken for the mock test shall be recorded.

2.14.4 The "mock recall" tests shall successfully identify 100% of the product. Corrective action(s) shall be documented and implemented for any deficiencies identified in the mock recall/withdrawal system. These corrective actions shall be used to review and revise the Recall and Withdrawal Plan.

2.14.5 There shall be a designated management person for determining the status or disposal of recalled or withdrawn product.

2.15 Customer Complaint Procedure

2.15.1 The facility shall prepare and implement a system for the management of customer complaints to control and correct shortcomings in food safety, quality, legality, and customer satisfaction.

2.15.2 All customer complaints shall be documented. Records shall include: the nature of the complaint, investigation, product affected, root cause analysis, corrective and preventive action, product status where appropriate, and final complaint resolution.

C3 Food Safety Management

3.1 Food Safety – Hazard Analysis and Critical Control Point (HACCP) Compliance For all Species

3.1.1 The HACCP plan and hazard analysis shall include, at minimum, those hazards identified by Codex Alimentarius, or the USFDA's "Fish and Fishery Products Hazards and Controls Guidance" (aka "FDA Hazards and Controls Guide"), to current editions or the relevant components of the Food safety and Modernization Act (FSMA) Preventative Controls for Human Foods Rule. Where either the requirements for the country of product origin or country of export apply, the stricter shall prevail. In the absence of specific legislation or guidance for country of origin or product export countries, the hazards defined in the current issue of "FDA Hazards and Controls Guide" prevail. For facilities processing fish of the order Siluriformes, refer to the USDA Mandatory Inspection of Fish of the Order Siluriformes and Products Derived From Such Fish.

3.1.2 The scope of the HACCP system shall be defined per product, per process line/or process-location. It shall include verified process flow diagram(s) including those that are outsourced, the description of the product and its presentation(s), intended use, and method of distribution. The accuracy of the process flow diagram shall be verified, at a minimum, annually by all members of the HACCP team.

3.1.3 All Critical Control Points (CCPs) shall be properly identified, and procedures accurately followed in order to control or prevent hazards.

3.1.4 The HACCP plan and hazard analysis shall include a list of all allergens present at the facility, including the various species of seafood handled. Each species shall be identified by their scientific name. All allergens shall be effectively controlled throughout the entire operation of the facility including receipt, storage, handling, and use.

3.1.5 The facility shall demonstrate that they have labeled the presence of allergens in the finished product.

3.1.6 All critical limits set at each CCP shall be based on validated processes, industry standards or scientific and regulatory guidance.

3.1.7 Monitoring procedures shall be in place to control each hazard at each CCP and documented in the HACCP plan. These procedures shall include the monitoring frequency, methods, responsible personnel, and associated records.

3.1.8 The facility shall identify in the HACCP plan corrective actions that shall be taken any time a critical limit is not met at any CCP. The corrective actions taken shall be documented. The corrective actions shall include product disposition, as well as root cause and future prevention.

3.1.9 A properly functioning metal detector or an X-ray machine shall be in place to check all finished product unless the facility can demonstrate through hazard analysis in its HACCP plan that it is not reasonably likely to expect metal fragments could enter the food.

3.1.10 Facilities shall include in the hazard analysis potential hazards from environmental contaminants at the farm or harvest sites they source from. This includes chemicals, pesticides or heavy metals that may originate from industrial or agricultural operations near the producing farm or harvest site.

3.2 Food Safety – Hazard Analysis and Critical Control Point (HACCP) Compliance for Farm Raised Species

3.2.1 The HACCP plan shall include monitoring for residues of unapproved aquaculture drugs appropriate for the species. The facility shall base sampling plans on risk assessment and supplier agreements, and historical analysis. The facility shall have a well-documented verification program in place covering all drugs per SPS prohibited chemical residues (refer to Annex 1 – Seafood Processing Standard 6.0 Finished Product Testing Operational Guidance Table 3).

3.2.2 The facility shall include in their HACCP plan testing for other approved and unapproved and/or banned drugs, beyond those listed in Annex 1 – Seafood Processing Standard 6.0 Finished Product Testing Operational Guidance Table 3 where compliance with country of origin laws, or country of export laws, or buyer specifications require it.

3.3 Food Safety - HACCP Procedures Assessment

3.3.1 The HACCP Team shall meet regularly to review HACCP compliance and assess the need for plan revisions. The team shall consist of appropriately qualified multi-disciplinary personnel with a designated team leader identified. Such reviews shall be conducted to assess effectiveness and shall be conducted in advance of any change in the product, processes or ingredients that may have an impact on food safety. Records of these meetings shall be kept. Where there have not been any changes, such meetings and plan assessments shall occur at minimum annually.

3.3.2 Usage of chemicals shall also be reviewed to ensure that such usage conforms to the regulations of both the country where the production occurs, and the country to which products will be exported.

3.4 Food Fraud

3.4.1 The facility shall have a documented food fraud vulnerability assessment procedure (VACCP Vulnerability Assessment Critical Control Points) in place to identify potential vulnerability and prioritize food fraud mitigation measures. The VACCP shall follow the format of the Food Fraud Vulnerability Assessment tool or similar www.ssafe-food.org.

3.4.2 The food fraud plan and risk assessment shall be reviewed anytime a new vulnerability is exposed, but at a minimum, annually.

3.4.3 The facility shall have a documented plan in place that specifies the measures the organization has implemented to mitigate the public health risks from the identified food fraud vulnerabilities.

3.4.4 The facility's food fraud mitigation plan shall be supported by the organization's Food Safety Management System.

3.5 Food Safety – Food Defense

3.5.1 The facility shall have a documented risk assessment system and procedure (Food Defense Plan/TACCP Threat Assessment Critical Control Points) in place to identify and address food defense risks. This shall be established, implemented, and maintained to prevent, reduce, or eliminate these risks, and shall be included in the facility's Food Safety Management System. The Food Defense plan and risk assessment shall be reviewed at a minimum annually.

3.5.2 Personnel responsible for the implementation of the food defense plan (the "food defense team") shall be clearly identified in the document. Members of the food defense team shall receive training and have knowledge in this area to ensure the effective implementation of the food defense plan and shall ensure that the mitigation strategies are assessed to verify that the food defense plan is being effectively implemented.

3.6 Food Safety – Plant Sanitation – Pest Control

3.6.1 The facility shall have in place a pest control program/system that prevents and controls risk of pest infestation and harborage areas inside the facility and on facility grounds. Pest control shall be performed by either a licensed third-party or properly trained personnel within the facility. Chemicals used in food facilities shall meet at minimum US EPA standards or equivalent.

3.6.2 Litter/garbage and discarded equipment shall be properly disposed of or stored to avoid the creation of pest harborage areas.

3.6.3 Windows, doors, walls, and other openings to the outside of the facility shall be sealed, screened, or covered to exclude pests and shall ensure all proper steps are taken to prevent pest entry through effective building design, maintenance, operational procedures, and employee training.

3.6.4 All pest traps shall be located so as not to contaminate food-processing areas. Poison bait traps shall not be located inside food production areas.

3.6.5 The facility shall have a program for pest trap inspection that includes a map of trap locations, regular cleaning and records of pests caught to allow for a trend analysis to be conducted on an annual basis. All pest traps shall be fully operational.

3.6.6 Processing and primary storage areas in the facility shall show no evidence of pests or pest activity.

3.7 Food Safety – Plant Sanitation – Facility Design and Construction

3.7.1 The facility's grounds and outside areas shall be maintained to prevent worker safety hazards, environmental hazards, and pest harborage risks.

3.7.2 All food contact areas and equipment shall be constructed of food grade materials, and shall be designed, installed, constructed, and used to prevent product contamination.

3.7.3 Restrooms and other personal hygiene areas shall open directly into transition areas with proper sanitation controls and not directly into processing areas inside the facility.

3.7.4 Internal floors and walls shall be made of a smooth, impermeable material that can be readily cleaned and sanitized.

3.7.5 The floor wall junctions shall be properly sealed and maintained to prevent the accumulation of waste and contaminants.

3.7.6 Floors shall be designed to avoid pooling of water and accumulation of waste and contaminants.

3.7.7 The facility shall have a production flow that maintains separation between finished and unfinished products to prevent cross contamination.

3.8 Food Safety – Plant Sanitation – Maintenance

3.8.1 A comprehensive maintenance program, including preventative maintenance, shall be in place and documented. This program shall include walls, floors and all items of equipment and other food contact surfaces critical to product quality and safety. The program shall include at a minimum:

- An itemized list of items and areas to be maintained.
- A preventative maintenance schedule.
- Records of inspections and maintenance performed.

3.8.2 All overhead lights in food production and primary storage areas shall be shielded or made of shatterproof material to prevent glass contamination of product from broken bulbs.

3.8.3 The facility shall provide lighting fit for purpose in processing and product inspection areas.

3.8.4 The ceiling of food production, food packaging, ingredients and chemical storage areas shall be maintained. There shall be no evidence of leaks, mold, rust or flaking paint.

3.8.5 All floor surfaces in food production and primary storage areas shall be in good condition, and free of significant cracks or gouging. Where floor damage exists, the repairs shall be on the preventative maintenance schedule, the time period allowed for the repair shall be based on risk.

3.9 Food Safety – Plant Sanitation – Cleaning and Sanitation

3.9.1 Work surfaces that come in contact with food products (tables, equipment, utensils, employee gloves and clothing) shall be in good condition and cleaned and sanitized before use. This includes walls in production and food storage areas which shall be kept clean.

3.9.2 Facilities shall maintain a written Standard Sanitation Operating Procedure (SSOP) that details cleaning frequency and designates implementation and verification responsibilities.

3.9.3 Sanitation verification shall include a risk based environmental monitoring program for assessing the effectiveness of cleaning and sanitizing activities. Planned and frequent microbial analyses (ATP or protein residue tests) of food contact areas shall be carried out after cleaning and before sanitizing whenever possible.

3.9.4 Records of environmental verification analyses shall include Listeria spp. (for drains only), and other process related indicator organisms such as Enterobacteriaceae, or standard plate count.

3.10 Food Safety – Plant Sanitation – Personnel

3.10.1 The facility shall have a documented personal hygiene standard and program that prevents product contamination and that, at a minimum, includes the below elements and other related elements of this standard - as well as additional measures as appropriate based on risk.

3.10.2 Medical screening procedures shall be in operation for employees, contractors, and visitors.

3.10.3 All employees shall be monitored for visual signs of contagious illnesses upon arrival and during work in food production and packing areas. Workers found to be ill shall be removed from the facility site and records shall be maintained.

3.10.4 The facility shall have a policy in place that requires employees to report immediately to their supervisor if they become injured or ill during the workday.

3.10.5 All workers in food production and packing areas shall not wear jewelry and shall not carry items in pockets unless approved by management. Medical bracelets, medical necklaces or wedding bands may be worn with proper protection to prevent food contamination with management approval. Such jewelry shall be smooth with no stones or recessed areas.

3.10.6 Workers shall be provided with and wear protective clothing for their assigned tasks.

3.10.7 Employees shall keep food and drink out of processing, packing and storage areas, and shall not smoke or chew tobacco or gum. This clause also includes e-cigarettes, hallucinogenic or recreational drugs and personal medication.

3.10.8 Employees shall keep personal items out of processing, packing and storage areas.

3.10.9 The facility shall have foot baths, antibacterial granules, foamers or sprayer systems, handwashing/hand dip and sanitation stations that are accessible throughout food production areas. These shall be maintained and not easily avoided to promote good sanitary practices.

3.10.10 The facility shall monitor and enforce employee compliance with sanitary procedures as stated in facility GMP/ hygiene policies.

3.10.11 The facility shall provide sanitary supplies, (or where culturally applicable, washing facilities), disposable hand towels or other drying mechanisms, and soap in employee sanitary facilities. Mechanical air-drying devices shall be tested based on manufacturers recommendation or risk assessment for microbiological contamination.

3.10.12 There shall be a documented policy that instructs contractors and visitors on facility sanitation and hygiene policies, including hand washing, control of personal items, and the proper use of protective clothing. They shall be required by the facility to follow these policies.

3.11 Food Safety – Plant Sanitation – Ice, Water, Air, Gases and Steam

3.11.1 Water used in food production areas shall be checked at least every six months for microbiological parameters by an accredited 3rd party laboratory, additionally one of the semi-annual tests shall include heavy metals as stated in Table 1.0 Water Quality Testing Requirements.

3.11.2 Routine water quality checks during production days shall be carried out by the facility for residual disinfectant levels (such as chlorine or ozone). These checks shall occur at a minimum daily. The facility shall also test for the presence of coliforms monthly.

3.11.3 The facility shall prevent water contamination through backflow pressure valves and proper hose storage.

3.11.4 Ice used on product or food production areas in the facility that is purchased from outside sources shall be tested at least every six months by a third-party laboratory for microbiological parameters, additionally one of the semi-annual tests shall include heavy metals as stated in Table 1.0 Water Quality Testing Requirements.

3.11.5 Ice produced by the facility shall be tested at least every six months by a third-party laboratory ONLY for the microbial parameters listed in Table 1.0 Water Quality Testing Requirements.

3.11.6 Ice shall be stored in hygienic and well-maintained areas free of dripping condensation, rust, dirt and other contaminants. Ice shall not be re-used and shall be handled to avoid cross-contamination from any source, including utensils, employee garments, storage, and transport bins.

3.11.7 Routine ice quality checks, regardless of source, shall be carried be out by the facility for the presence of coliforms monthly.

3.11.8 Facilities shall have a procedure in place that ensures the safety of air, compressed air, steam, or other gases used in direct contact with food, food packaging or an ingredient in food. The facility shall monitor these items to verify that they do not pose a risk of contamination to food or food contact surfaces.

3.11.9 Non-potable water shall be kept separated from potable water sources during storage, during conveyance for use in the facility, and during use. Piping and containers used for non-potable water shall be visibly marked.

3.12 Food Safety – Chemical Products used for Plant Sanitation

3.12.1 All chemicals, including cleaners, sanitizers, chlorine, boiler chemicals, and any other chemicals utilized in the production areas shall be approved for use in food plants and used per manufacturer's instructions.

3.12.2 Monitoring records for all chemicals shall be maintained at a frequency recommended by the chemical supplier. These shall include, at minimum, the name of the chemical, concentration level, and tests performed to verify the correct concentration.

3.13 Food Safety – Plant Sanitation – Ventilation

3.13.1 There shall be no condensation which has the potential to contaminate product, packaging materials, ingredients, or food contact surfaces.

3.14 Food Safety – Storage and Transportation

3.14.1 Procedures shall be in place to ensure raw materials, packaging, cleaners, sanitizers, and ingredients are used in the correct inventory/stock rotation order and within the allocated shelf life (where applicable).

3.14.2 Raw material, finished products, ingredients, packaging, and other food contact items in ambient, frozen and/or refrigerated storage shall be stored off floors, away from walls and covered to protect from contamination. There shall be space maintained between pallets and space between pallets in freezer/refrigerated storage to allow air flow.

3.14.3 The facility shall maintain temperature records for the effective monitoring of frozen storage areas at -18 °c or colder and coolers at 0-5°c for refrigerated/chilled storage.

3.14.4 All vehicles, including contracted out vehicles, used for the transportation of raw materials, ingredients, packaging, intermediate/semi processed product and finished product shall be suitable for the purpose, maintained in good repair, at the proper temperature, where applicable, and be cleaned to ensure contamination of the transported goods does not occur. Temperature controls, where applied, shall be continuously monitored and records shall be available.

3.14.5 There shall be a written inspection plan for all inbound and outbound goods that include, at minimum, the items listed in 3.14.4. Such checks shall ensure the items and delivery containers meet specifications for safety and quality.

3.15 Food Safety – Cross-Contamination

3.15.1 The facility premises, equipment, procedures, and flow shall be designed, constructed, and maintained to prevent the risk of contamination or allergen cross contact to food, food contact surfaces and ingredients.

3.15.2 Cleaning and sanitizing activities shall not occur where exposed product, packaging, ingredients, or utensils are nearby to prevent cross-contamination.

3.15.3 All products in chilled and/or frozen storage shall be kept in protective sealed cartons or, if this is not possible, in storage systems that shall prevent contamination or dehydration.

3.15.4 There shall be effective procedures in place to prevent cross-contamination and cross contact between allergen and non-allergen products, ingredients, utensils, and workers throughout receipt, storage, handling, and use. Such procedures shall also be in place to prevent cross-contamination between ingredients or products with different allergens.

3.15.5 There shall be a foreign materials prevention program (or series of separate programs), that prevents contamination from all forms of foreign material, including but not limited to paint, wood, glass, plastic, metal, hair, rust, etc.

3.16 Food Safety – Product and Process Testing

3.16.1 There shall be a written program for the use of food additives or chemicals such as sulfites, color additives, phosphates, phosphate blends or other moisture retention agents. The facility shall also verify that these items are food grade and used in compliance with legal, customer, and manufacturer's requirements.

3.16.2 The facility shall conduct microbiological testing on finished product lots as required by local and country of export legislations and customer specifications.

3.16.3 Product design and development procedures shall be established, implemented, and maintained for new products and changes to product or manufacturing processes to ensure safe and legal products are produced.

C4 Verification Management

4.1 Product Release

4.1.1 The facility shall document and implement appropriate Product Release Procedures that identify processes and testing procedures that shall be performed prior to release. These procedures shall identify the responsible personnel authorized to release product and include food safety, quality and legal specifications that shall be verified as having been met prior to release into commerce.

4.2 Internal Audit

4.2.1 The facility shall have an internal audit system in place that requires assessment of the facility's performance against the full scope of the SPS, including relevant modules.

4.2.2 The facility's internal auditors shall be trained and competent to conduct internal audits and shall not audit their own areas of operation.

4.2.3 Records of the Internal Audits shall be maintained. Records shall reflect results of the internal audit, including conformity and non-conformity. Where non-conformities are found, records shall document corrective actions and time frame for completion for each.

4.2.4 The internal audit frequency within the facility and its departments shall be determined by risk assessment and shall be carried out annually at a minimum.

4.3 Instrument Calibration

4.3.1 Process-monitoring instruments critical to food safety, quality, and legality shall be tested internally for accuracy.

4.3.2 The measuring and monitoring devices shall be labeled with tags that indicate instrument identification and calibration due dates. The facility shall maintain a documented accuracy check procedure and schedule that identifies all measuring and monitoring devices. The schedule shall identify:

- Each item to be checked;
- The date of the accuracy check;
- Scheduled frequency of the accuracy check;
- Recognized method, or standard used, of the accuracy check, and;
- Person conducting the accuracy check.

Instruments that cannot be adjusted to an accurate calibrated reference shall be repaired or replaced immediately.

4.3.3 The facility shall ensure that all measuring and monitoring devices critical to food safety are externally calibrated at least annually or to manufactures specifications by a qualified third party and are traceable to a national or international recognized standard.

4.4 Sampling and Inspection

4.4.1 The facility shall prepare a written product sampling plan based on risk that details the frequency and type of product testing. This sampling plan shall also incorporate any testing that is required by current certifications, customers, or regulatory authorities.

4.5 Laboratory Testing

4.5.1 The facility shall prepare and implement a system to ensure that all product and ingredient testing and analysis critical to food safety are conducted to ISO 17025. If it is necessary to use a non-accredited laboratory, the laboratory must be operating under the principles of ISO/IEC17025, including participating in an accredited proficiency testing program. If pathogen testing is conducted internally the laboratory shall provide evidence that it is fully isolated from processing and storage areas.

4.5.2 Records of third-party laboratory testing, testing methods, and the accreditations or approvals they have, shall be reviewed, and maintained. Actions shall be conducted to address any out-of-range results.

C5 Environmental

5.1 Storage and Disposal of Facility Chemical Supplies

5.1.1 Chemical products, fuels, lubricants, and other non-food grade and/or toxic compounds shall be correctly labeled.

5.1.2 Chemical containers shall only be used to store their designated chemical and shall not be reused.

5.1.3 All chemical products- including fuels, lubricants and other non-food grade and toxic substances shall be securely and safely stored in designated locked containers, or locked storage areas. The containers shall be located in areas that would prevent contamination risks to any other parts of the facility. These areas shall be under control of designated, trained personnel.

5.1.4 All chemicals shall be stored to prevent mixing that would result in noxious gases, explosions or other worker or food safety hazards. The storage area shall be water-tight and well ventilated.

5.1.5 Fuel, oil and lubricant storage shall include secondary containment areas to contain possible spills and shall be equal to or greater than 110% of the capacity of the storage container used at the facility.

5.1.6 Fuel, lubricant, chemical storage, and maintenance areas shall be marked with warning signs.

5.1.7 The facility shall have in place procedures to prevent and handle any chemical spillages. Equipment and materials for managing and cleaning up spills shall be readily available. Clean up spill kits shall be labeled and periodically inspected for contents and expired products.

5.2 Environmental Waste Management

5.2.1 Sewage from the facility shall be controlled to avoid contamination of the environment, food production areas, employee rest and housing areas, and water supply. It shall be properly treated through a municipal or plant sewer system.

5.2.2 Solid waste in facility production areas and on the facility, grounds shall be properly stored and disposed of according to local and national laws and regulations. Such waste shall be disposed of to avoid, mitigate and/or compensate for negative impacts on the local community.

5.2.2.1 If solid waste by-products will be used as raw material for marine ingredient production or pet food, it shall be handled in accordance to feed and/or pet food regulations.

5.2.3 Used chemical and fuel containers, waste oil, lubricants, and expired chemicals and other waste materials shall either be disposed of in accordance with manufacturer's instructions and local government environmental regulations or be recycled. The facility shall maintain copies of relevant and up to date government regulations.

5.2.4 Where the local government requires a license or permit for the waste storage and disposal activities, the facility shall have a current copy of the plant's or their service provider's permit or license.

C6 Traceability

6.1 General Requirements

6.1.1 The facility shall operate a traceability record-keeping process that provides timely, organized, accurate entries, performed and overseen be designated trained personnel responsible for collecting data, ensuring it is complete and accurate, and that traceability requirements are met.

6.1.2 Where a facility's traceability system uses an online system or computer database, the facility shall keep copies of the documents or records that were used to transfer the data to the electronic system in order to allow verification of the information in the electronic system.

6.2 Traceability Key Data Elements

6.2.1 The facility shall maintain and provide to the auditor documented records for all production lots/batch that contain the Key Data Elements (KDE) as applicable for each Critical Tracking Event (CTE), for farm raised and for wild-caught species:

General KDE's for both wild and farmed that shall be required are:

- Location Description- where species processed
- Lot/batch number, Traceability Lot Code (TLC)
- Storage location
- Shipping
- Receiving
- Unique shipping identifiers – container or seal number, bill of lading
- Receiving customer information – name, address, invoice, or order number
- Breakdown of all species (Transformation) (separately for farm-raised and wild caught)
- Product description - product name, packaging size, and packaging style, scientific species name
- Quantities
- Weight/sizes
- Input tonnage and total net weight for mass balance calculation

6.2.2 The facility shall maintain production records for all lots or batches that enable the facility to demonstrate lot traceability of all stages of the production process, including rework and outsourced processes. Records shall include the:

- Source and description of the raw material;
- Lot number and quantity of raw material;
- Lot numbers of ingredients and packaging materials used;
- Receiving customer information; and
- Quantity of finished product shipped listed by species.

6.2.3 The facility shall conduct one trace forward and trace back exercise. The results of the trace forward and trace back exercises must account for 100% of the product and results must be achieved within 4 hours once the SPS auditor selects and assigns the lot.

6.3 Labeling Controls

6.3.1 Products shall be properly labeled with all information, including allergens, as required by local legislation and legislation of the country of destination. Products shall also supply information to ensure safe handling, storage, preparation, and use of the product along the supply chain or by the consumer.

Table 1.0: Water Quality Testing Requirements

Test Items	Acceptable Test Methods	GSA Action Levels **	Units
Heavy Metals/Chemicals	Modified APHA or other internationally recognized and approved methods for water testing		
Aluminum (AL)		0.2	mg/L
Antimony (Sb)		0.005	mg/L
Arsenic (As)		0.01	mg/L
Cadmium (Cd)		0.005	mg/L
Chromium (Cr)		0.05	mg/L
Copper (Cu)		2.0	mg/L
Lead (Pb)		0.01	mg/L
Manganese (Mn)		0.05	mg/L
Mercury (Hg)		0.001	mg/L
Nickel (Ni)		0.02	mg/L
Selenium (Se)		0.01	mg/L
Microorganisms	Modified APHA cited below or other internationally recognized and approved methods for water testing.		
Coliform	APHA 22nd ed 2012 9222B	<1.0	Per 100mL
E. Coli	APHA 22nd ed 2012 9222G/9222H or 9222I	<1.0	Per 100mL
Total Plate Count	APHA 22nd ed 2012 9215B or 9215C	100	cfu/ml at 22°C

****GSA Action Levels – at or above these levels a non-conformance would be issued by the CB against an appropriate clause in the standard.**