



**Agrichemical Warehousing
Standards Association**

Protected Agriculture Stewardship Standards

September 2023



Protected Agriculture Stewardship Standards

Effective September 25, 2023

How to Use this Guide

This guide lists the protocols for compliance certification with the Protected Agriculture Stewardship Standards. The first section contains policies and processes applicable to the Standards. The second section contains the protocols and describes the audit evidence required for each protocol. A Compliance Assistance Manual has been prepared to provide further guidance and interpretation of the Standards. This is available electronically and is posted on the Agricultural Warehouse Standards Association (AWSA) website (www.awsa.ca). Between issuance of versions of this guide, interim changes and interpretations will be posted on the AWSA website (www.awsa.ca). Once posted they will be considered as part of the Standards.

Technical Questions

Technical questions or questions about interpretation of the Standards may be addressed to the AWSA Program Manager at manager@awsa.ca (1-877-236-2972) or by contacting one of the program auditors. Please visit www.awsa.ca for regular technical updates.

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DISCLAIMER

The Protected Agriculture Stewardship Standards that follow are intended to be used by Agrichemical Warehousing Standards Association (AWSA) for the purpose of issuance of a Compliance Certificate. Neither CropLife Canada, AWSA, their employees, members, allied associations or agents have made or hereby purport to make any representation, warranties or covenants with respect to the specifications or information contained in these compliance standards or the results generated by their use, nor will they be liable for damage or loss of claims, including those of an incidental or consequential nature, arising out of these compliance standards. These standards are not in any way intended to supersede or detract from any requirements contained in municipal, provincial or federal by-laws, regulations or legislation.

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PREAMBLE

The 2016 Proposed Re-evaluation Decision by PMRA ([PRVD2016-20](#)) for Imidacloprid raised water quality concerns related to greenhouse product use. As a result, a group of impacted stakeholders agreed to work towards the development of a credible protected agriculture pesticide lifecycle stewardship program. The approach focuses on adherence to a national standard that supports compliance with registered pesticide label directions and the mitigation of risks associated with crop protection tools, fostering the health and safety of people and the environment. “Protected agriculture” refers to crops that are grown under structures such as greenhouses, shade houses, high tunnels, warehouses, etc. Crops grown using these systems include fruit, vegetables, flowers and other commercial crops (e.g., cannabis). Further clarity is provided in the Scope section.

INTRODUCTION

CropLife Canada and its members, in consultation with national and provincial grower organizations, created the Protected Agriculture Stewardship Standards to assist operators in the identification and mitigation of risks associated with the use of crop protection tools. The Standards were drafted by a multi-stakeholder committee committed to the continuous improvement of environmental, health and safety risks in the Canadian protected agriculture sector. Health Canada’s Pest Management Regulatory Agency (PMRA) and Agriculture and Agri-Food Canada (AAFC) acted in an advisory capacity to guide development of the standards.

The initiative is currently in Phase 1 which applies to all Protected Agriculture operations for all crops using Pest Control Product (PCP) registered products labelled for greenhouse use. All other PCP’s are out of scope for Phase 1. Effective January 1, 2024 all Category 1 operations will need to present proof of certification and Category 2 operations will need to have a waiver (see definition under scope) in place in order to purchase the aforementioned products.

The Protected Agriculture Stewardship Standards are managed and audited by the AWSA.

VISION STATEMENT

A credible pesticide lifecycle stewardship approach comprised of adherence to national standards for protected agriculture that are within industry control and that support compliance with registered pesticide label directions to ensure the health and safety of people and the environment.

OBJECTIVE

The development of auditable protocols to assist operators in the identification and mitigation of risks associated with pesticide application with the longer-term goal of continuous environmental, health and safety improvement.

SCOPE

Protected Agriculture (PA) refers to crops that are grown under structures such as greenhouses, shade houses, hoop houses, high tunnels, warehouses and freight container growing operations.

Phase 1:

Effective January 1, 2024, any PA operator wishing to purchase PCP registered products labelled for greenhouse use will either need to have a PAS Certificate (applies to all Category 1 PA operations) or have a Category 2 PA waiver in place (applies to all Category 2 PA operations). The Category 2 waiver allows an operation to self-declare that it falls outside of the definition for Category 1 operations (i.e. Category 2 operations do not capture and recirculate irrigation water as defined below).

Waivers can be acquired through registration at www.awsa.ca. Please note that this declaration does not relieve operators of their obligations as defined by the [Pest Control Products Act](#) and specific product label requirements.

Category	Description	Requirement
Category 1 Protected Ag Operations	<ul style="list-style-type: none">All PA operations, of any crop, using <u>closed-loop</u> irrigation/chemigation systems. A closed system is one where any excess chemigation liquid delivered to the crop is captured via trough, drainage tile, or other similar conveyance system, rather than allowed to percolate into the ground.Any mixed operations must be certified on portions of the facility that fall under Category 1 definitions.Note - Warehouse production structures and freight container growing operations with no subterranean plumbing and continuous flooring are excluded from Category 1.	<p>All Category 1 PA Operators must register before December 31, 2023. Once registered, a Temporary PAS Certificate will be issued. These Temporary PAS Certificates will expire on June 30, 2024.</p> <p>Category 1 PA Operators will be required to present this Temporary PAS Certificate to their suppliers in order to be eligible to receive shipments of PCP products labelled for greenhouse use in 2024.</p> <p>Category 1 PA operators must be audited and certified before June 30, 2024 in order to continue to receive shipments of PCP products labelled for greenhouse use in 2024.</p>
Category 2 Protected Ag Operations	<ul style="list-style-type: none">All PA operations, of any crop, using <u>open</u> irrigation/chemigation systems where excess chemigation liquid is not captured.Warehouse production structures.Freight container growing operations.	<p>Effective January 1, 2024 must provide crop protection product supplier with a waiver declaring the operation falls into Category 2 in order to receive PCP products labelled for greenhouse use.</p>

Effective January 1, 2024 all ag-retailers will be required to verify all Category 1 Operators' PAS certification status prior to shipping/selling PCP registered products labelled for greenhouse use.

Effective January 1, 2024 all ag-retailers will be required to have a waiver on file for all Category 2 PA Operators prior to shipping/selling PCP registered products labelled for greenhouse use.

AUDIT PROCESS & CYCLE

The PAS Standards audit assesses the operation's compliance against the established Standards. The audit consists of 4 mandatory protocols that must be satisfied for PAS certification to be granted.

The audit also consists of additional protocols to achieve a Certificate of Excellence (COE). These protocols represent industry best practices and in some instances are legal requirements. We encourage all growers to review the COE protocols and consider Excellence Certification as a demonstration of your commitment to workplace excellence. Completion of all protocols will result in a Certificate of Excellence (COE). Options to utilize the COE as a tool to meet other third party requirements are being explored.

A successful audit will allow the PA operation to access PCP registered products labelled for greenhouse use from ag-retailers and distributors. The purpose of each protocol is to provide the Auditor with a step-by-step guide in collecting evidence about an operation's facility and practices that have been included within the scope of the audit. The audit is a systematic comparison of the operation against established standards.

Note: These standards are applicable to the issuance of a compliance certification for the PAS Standards. The Standards and the audit thereof, is not an assessment of regulatory compliance. Operators are responsible for compliance with all regulatory requirements.

Site Definition for Auditing and Certificate Issuance – Category 1

Each Category 1 PA operation must successfully complete an audit to achieve certification. For the purposes of certification, a site is described as one unique location (specific address and/or land location) which has a closed loop irrigation/chemigation system present in all or part of their protected ag structures. A site may have multiple structures at this location which have defined areas for pesticide storage and mixing/loading that would form part of the audit. A site may span multiple addresses and will be considered a single site provided that the sites are adjacent.

Organizations that have multiple locations that have any or all of the following at each location are subject to an audit:

- Have a closed looped irrigation/chemigation system
- have a defined storage area for pesticides used at a closed loop operation

- have a defined pesticide mixing/loading area for closed loop irrigation/chemigation systems.

Each different location (address and/or land location) will be treated as a separate audit and a separate certification number will be issued.

Audit Cycle

1. The frequency for auditing is every two years. Certification expiration dates are always the last day of the year in which a re-audit is required. For example, if an operation was successfully audited and certified any time during 2022, they will have an expiration date of December 31, 2024. They will be required to be re-audited within calendar year 2024 and each successive two-year period.
2. The timing of the initial audit or re-audit will be at the discretion of each operation's owner/management and an accredited AWSA Auditor. Operations requiring an audit must have successfully completed their initial audit by January 1, 2024 in order to purchase PCP registered products labelled for greenhouse use. For re-audits, audits may be completed anytime within the required 2-year timeframe.
3. Operations must successfully complete a re-audit prior to the certification lapse date to maintain PAS certification. Operations that lapse will lose their certification status making them in-eligible to access PCP registered products labelled for greenhouse use from ag-retailers, distributors and/or manufacturers. Once successfully re-audited, certification will be reinstated.
4. If an operation's Compliance Certificate has lapsed, the original re-audit cycle will remain. For example: If an operation was first accredited in October 2022, its re-audit is due by December 31st of each successive year i.e. 2024, 2026, 2028, etc.

Booking Your Audit

Upon initial registration with AWSA, an Auditor will be assigned. Audits should be scheduled several months prior to the audit due date to avoid a shortage of auditing services. Operators are responsible for working with their Auditors to book and complete the audit. Auditors may change for subsequent re-audits. Operators may request a change in Auditor by contacting AWSA.

Fees

Each operation will be invoiced for the audit directly by the Auditor. An Audit Time Estimate Card will be made available by AWSA upon registration. The cost of the audit will vary depending on a number of factors, including size of the operations, availability of relevant paperwork, preparedness of the operator and number of interactions required. Operators will receive a feedback form directly from AWSA and are welcome to submit concerns related to the effectiveness or cost of the audit process.

Prior to the Audit

1. Ensure that you, as the operator, and employees involved in the storage, handling and application of pesticides have read and understood the audit protocols and the objective of the audit.
2. Conduct a self-audit using the protocols to measure compliance with the standards.
3. Advise all employees when the audit will be conducted in advance of the scheduled audit.

Audit Process

Audits initially will be conducted virtually. Many of the protocols are documentation based and can be reviewed electronically by AWSA Auditors. In addition to documentation review, Auditors will be using telephone interviews, photographs, and live video walking tours of sites to conduct audits. A virtual audit template can be found on the following page.

Operators will need to allocate ample time to discuss the audit process and the results with the Auditor. Ensuring that all relevant documents are readily available for review by the Auditor (i.e., operating procedures, check lists, emergency response plans, site map, training files, etc.) will make the process more efficient. The Auditor will ask for the operator to explain operation process flows to verify written operational procedures.

During the audit process incomplete items will be flagged and action lists generated. Operators will continue to work with their auditor. Once all action items are completed to the auditor's satisfaction an electronic report will be generated and certification will be granted.

AWSA reserves the right to complete an in-person audit if the virtual audit is deemed inconclusive by the auditor. Additionally, AWSA may implement in person audit requirements for future audit cycles.

Virtual Auditing Template

Protected Agricultural Stewardship Standards

(M)andatory (COE) Certificate of Excellence	#	Method for verification			Verification Requirements
		Document	Photo/Video	interview	
COE	A1	X		X	Auditor will review and discuss the process flow chart with the operator and/or key staff. Auditor will review the site diagram.
COE	A2		X	X	Site will assist auditor identifying location of signs using the site diagram. Pictures or video of signs will be reviewed.
COE	A3	X	X	X	Using the site diagram, operators will assist the auditor identifying location of emergency equipment. The equipment inventory list will be reviewed. Sample product SDS' will be reviewed to ensure PPE requirements align with SDS requirements. Pictures or video of equipment will be reviewed.
COE	A4	X		X	Training records will be reviewed and discussed.
COE	A5		X	X	Using pictures and/or video auditor will discuss and confirm where pesticides are being stored.
COE	A6		X		Using pictures and/or video auditor will discuss and confirm pesticide container status.
COE	A7		X	X	Using video walk thru or pictures the auditor will confirm where SDS's are stored and confirm accessibility.
COE	A8	X	X	X	Using the site diagram and pesticide flow chart, operators will assist auditor identifying location of dedicated space for pesticide storage. Pictures/video of the areas will be reviewed and discussed. Documentation may be required to evidence chemical resistance of containment system. Documentation may be required to evidence ventilation system CFM's.
COE	A9	X	X	X	Using the site diagram and pesticide flow chart, operators will assist auditor identifying location of dedicated space for mixing/loading. Pictures/video of the areas will be reviewed and discussed. Documentation may be required to evidence chemical resistance of containment system. Documentation may be required to evidence ventilation system CFM's.
COE	A10	X	X	X	Using the site diagram operators and pesticide flow chart, will assist auditor identifying location of dedicated space for foliar mixing/loading. Pictures/video of the areas will be reviewed and discussed to confirm presence of spill kit(s) and eye wash station(s).
COE	B1	X		X	Documentation will be reviewed and discussed. A sampling of current and past application records will be review. Operators will discuss the documentation process and record retention process.
(M)andatory	#	Method for verification			Verification Requirements

(COE) Certificate of Excellence		Document	Photo/Video	interview	
COE	B2	X		X	Provincial pesticide application certification records will be reviewed for applicable staff.
COE	B3	X	X	X	Using photographs/video, auditor will review PPE with operator for applicable staff. Sample product SDSs will be reviewed to ensure PPE requirements align with SDS requirements.
COE	B4	X		X	Auditor will review and discuss the SOPs. Auditor will interview key staff to confirm knowledge of the SOPs.
M	C1	X		X	Auditor will review final water management assessment report to confirm successful completion. Auditor will confirm credentials of assessor. Auditor will confirm date of report.
M	C2	X		X	Using pesticide flow chart and documentation auditor will review and discuss the chemigation monitoring system. Operators will discuss the documentation process and record retention process.
M	C3	X		X	Using pesticide flow chart and documentation auditor will review and discuss the chemigation system maintenance program. Current and past maintenance records will be reviewed. Operators will discuss the documentation process and record retention process.
M	C4	X			Auditor will review the spill response plan to ensure the appropriate actions and contacts are identified.
COE	D1	X		X	Auditor will review documented procedures for maintenance of emergency equipment. Current and past inspection logs will be reviewed. Operators will discuss the documentation process and record retention process.
COE	D2	X		X	Auditor will review documented procedures for handling hazardous waste. Auditor will interview key staff to confirm knowledge of procedures.
COE	D3	X		X	Auditor will review documented procedures for accidents and incidents. Auditor will review available records.
COE	E1	X		X	Auditor will review the ER plan and discuss with the operator. Operator will confirm location of all ER plans. Auditor will confirm date plan was last updated.
COE	E2	X		X	Auditor will review notes/minutes of ER drill and discuss with operator. Attendance lists will be reviewed.

TERMS AND CONDITIONS OF CERTIFICATION

Prior to the issuance of a certificate, operators will be required to electronically review and agree to the following terms and condition of the compliance audit and certification. The Operator acknowledges and agrees to the following:

- (a) Operator accepts the PAS Standards established by CropLife Canada and as updated from time to time (the “Standards”), and agrees to the appeal process established by CropLife Canada for the resolution of disputes arising with respect to the Site’s compliance with the Standards;
- (b) Operator understands and agrees that in order to obtain a Compliance Certificate for the Site, Operator must obtain independent certification by an independent auditor (“Auditor”) on the list approved by CropLife Canada, confirming that the Site is in compliance with the Standards. Operator is solely responsible for compliance with the Standards;
- (c) Operators will permit access to the Site for the purposes of the compliance assessment of the site in connection this audit, and for any-reinspection of the Site in accordance with PAS Standards policies in effect;
- (d) Subject to the appeal process established by CropLife Canada and updated from time to time, Operator agrees to be bound by the Auditor’s findings with respect to the Site;
- (e) Operator agrees to pay any costs and expenses arising in connection with the certification of the Site, including the Auditor’s fees and expenses;
- (f) Operator understands that non-compliance with the Standards will result in the suspension of sales and shipments to Operator by manufacturers or distributors of pesticides until such time as certification is obtained;
- (g) Operator releases any and all claims it has or may in future have against AWSA, CropLife Canada, Funnel Communications Inc. and their successor, or such other Standards manager or administrator as CropLife Canada may designate from time to time and their respective members, directors, officers and employees and any auditor or senior auditor in connection with this application, the suspension of sales or shipments by manufacturers and distributors of pesticides, any audits conducted at the Site and any failure by the Operator to obtain a Compliance Certificate;
- (h) If Operator obtains a Compliance Certificate in respect of the Site, Operator understands that the obligation to maintain the site according to the Standards is ongoing and Operator must continue to comply with the Standards in order to maintain its Compliance Certificate.
- (i) Operator agrees to share data for the purposes of seeking and maintaining certification. All data collected will be maintained in compliance with AWSA’s data collection policy. A list of certificate holders will be made available to AWSA certified Ag-retailers for the purposes of confirming certification.

COMPLIANCE & ENFORCEMENT

As of January 1, 2024 only Category 1 PA operations (as defined under the “Scope”) that have successfully completed the PAS Standards audit and been certified or Category 2 PA operations with a waiver in place will be eligible to receive shipments of PCP registered products labelled for greenhouse use. Operators are required to maintain their operations in compliance with the Standards at all times. If a situation exists where non-compliance is detected, a compliance process exists to investigate the situation and prescribe remedial action. If an un-certified operator receives PCP registered products labelled for greenhouse use, a compliance process exists to investigate.

1. Compliance Procedure

Alleged non-compliance with the Standards (outside of biennial facility audits) may be brought to the attention of AWSA in various ways, including:

- a. from the general public (e.g. through “whistle blowers”); and
- b. from an auditor in the course of an investigation (e.g. due to a reported incident) or a random facility inspection taking place under the Quality Assurance Program.

Disclosures of alleged non-compliance with the Standards must be submitted in writing to the Program Manager via e-mail at manager@awsa.ca. Such disclosures must set out the details of the alleged non-compliance (including time, date, place, facility, nature of alleged non-compliance).

The Program Manager will not disclose and will protect the identity of whistle blowers pursuant to the paragraph above.

2. Qualification Process

- a) Program manager will investigate which will include a discussion with the Operator and may include assignment to an Auditor for a site visit;
- b) As a working goal, the complaint is to be addressed within three working days;
- c) Program manager will make an immediate initial report to the AWSA Executive Director;
- d) AWSA Executive Director will review the report in conjunction with the PAS Technical Committee as appropriate, and direct the Program manager on an appropriate response and course of action; and
- e) Program manager to notify the operation of course of action as a working goal before the fourth working day as to status.

3. Resolution Process

- a) Operation is advised in writing and is given a prescribed number of working days to undertake and complete corrective action measures dependent upon the type of non-compliance. This decision is made by AWSA and not the auditor independently;
- b) Operator to confirm in writing that the non-compliant situation has been corrected;
- c) If non-compliance situation is not corrected within the prescribed timeframe, certification is withdrawn. To then obtain re-certification, a successfully complete re-audit is required at the operation's expense;
- d) At AWSA's expense AWSA has the option for a second Auditor to visit operation to confirm compliance.

APPEALS PROCESS

The Appeals Policy identifies potential areas where appeals may be made and the procedures to identify, qualify and adjudicate.

Part A: Code Audit/Compliance Interpretation Appeals Process

Part A applies to:

- a) Protocol interpretation discrepancies between Operators and Auditors during the pre-audit or audit process or;
- b) Appeals related to corrective action requirements issued to audited Operators related to Quality Assurance Audits or for appeals related to issuance of notices of violations to audited Operations.

Steps:

1. Owners or Operators of audited facilities are encouraged to resolve any uncertainties or disagreements with their Auditor during the audit process, or in the case of a notice of violation, with the Program Manager. A Senior Auditor and/or the Program Manager should be consulted for assistance in the interpretation and application of the Standards prior to an appeal being submitted. This is a pre-requisite to a formal appeal being considered by the Standards Appeals Committee.
2. If notification that the certification will be declined or withdrawn has been issued, Operators ("Appellant") may launch a formal appeal by submitting a written brief to the Program Manager explaining the circumstances and rationale for appeal and include supporting documentation.
3. The Program Manager in consultation with a Senior Auditor will also prepare a brief explaining the circumstances and their rationale.
4. In the event of an appeal being launched the withdrawal of certification will not proceed until the appeal has been adjudicated.
5. These briefs will be forwarded to the Standards Appeals Committee.
6. The Standards Appeals Committee:
 - a. Shall be formed by CropLife Canada;
 - b. Shall consist of The AWSA Executive Director, the AWSA Program Manager and representative member(s) of the PAS Technical Committee and may include additional representatives at the discretion of CropLife Canada;
 - c. Shall be screened to ensure conflicts of interests do not exist;
 - d. Shall invite, if necessary, a Senior Auditor and the Appellant to submit any further information within five working days of receiving the appeal;
 - e. May review the relevant matter with a Senior Auditor and the Appellant either in person, via telephone or in writing;
 - f. May seek out additional regulatory or professional opinions to consider as part of the appeals process;

- g. Shall render a decision on the appeal as expeditiously as possible while respecting the principles of procedural fairness and public safety;
 - h. Shall report back to the Appellant on the status of the appeal every ten business days until a final decision is rendered;
 - i. The Appeals Committee will provide a final decision to the Program Manager for furtherance to the Appellant.
7. In the event that the withdrawal or declination of certification is confirmed upon appeal, the withdrawal of certification will be in effect at such a time as the operator receives formal correspondence from the Program Manager. Recertification will be accordance with established PAS Standards policies.

Part B: Appeals for Protocol Variance

Periodically Audited Operations (Operators) may appeal for consideration for a variance to a specific Code protocol, either for a period of time or indefinitely. The decision for Protocol Variance lies with the PAS Technical Committee. The process to request a protocol variance is as follows:

Contact the Program Manager to complete the Variance Request Form to identify the following:

- a. The specific protocol(s) within the Standards that the variance request is applicable to;
- b. The current operational situation as it relates to the specific protocol(s) identified;
- c. Changes to the operational situation that are anticipated or planned with relative time required to complete;
- d. Rationale for the variance request (such as financial hardship, construction scheduling, technological change, operational efficiency, timeline extensions, etc.);
- e. Ruling from local building inspector, fire chief or other regulatory authority of relevance to the specific protocol(s) identified;
- f. Additional information that the Operator's site management feel would aid in the decision-making process;
- g. The Operator and Auditor may choose to consult the Program Manager for assistance in the interpretation and application of the Standards;
- h. The PAS Technical Committee shall render a decision as expeditiously as possible while respecting the principles of procedural fairness and public safety.
- i. Formal correspondence of the variance request decision will be provided by the Program Manager to the Operator seeking variance consideration within ten working days of receipt. If a decision has not be finalized after the initial ten business days a status update will be issued every ten business days until a final decision is rendered.

POLICY ON LAPSED CERTIFICATION

Lapsed certification is defined as a withdrawal of certification resulting from:

1. Voluntary de-certification;
2. Failure to successfully re-audit before the expiry date;
3. Withdrawal of certification by AWSA management in accordance with established policies.

All operations require a full re-audit every two years to maintain certification status.

POLICY ON RENOVATION OF CERTIFIED OPERATIONS

Periodically it is expected that operations will make changes to their operations. Any physical renovation made to an operation must comply with the Standards. If significant renovation or replacements are performed, affected protocols must be re-audited for compliance with the standards before use. The full operation will still be subject to a complete re-audit by their next scheduled re-audit date. Extenuating circumstances will be handled on an individual basis by AWSA management. Examples of renovations that would trigger an audit include but are not limited to:

- the addition or full replacement of a storage area or a structural renovation to the building(s) in which a storage is housed which impact the protocols.
- Significant extension of, or replacement of chemigation system components.

POLICY ON CHANGE OF OWNERSHIP

If an operation changes ownership certification is transferable provided that:

1. Operator is to notify AWSA Program manager of change in ownership within 30 days of closing of purchase/transfer agreement;
2. Upon receipt of ownership change notification, the Program manager will forward an "Terms and Conditions" form to be signed and returned within 30 days of transfer to new ownership;
3. The operation must re-audit within 90 days of transfer to new ownership, regardless of the date of the last audit. The new audit date would set the frequency thereafter; and
4. If the ownership change does not involve a significant change of personnel, the operation may apply for a waiver from these changes of ownership requirements;
5. If the ownership change does not result in significant changes to the infrastructure relevant to this audit, the operation may apply for a waiver from these changes of ownership requirements.

POLICY ON DOCUMENTATION LANGUAGE

A wide cross section of individuals work within the Canadian agricultural sector. Many of the protocols in this standard require workers to be able to read written materials as part of their job. Examples include (but not limited to) signage, safe operating procedures, and emergency response plans. These materials must be available in languages understood by all workers, or if cases of literacy limitations, training records must be available that evidence these materials have been explained and are understood by all workers handling pesticides.

POLICY ON LEASED SPACE

Situations may arise where PA Operations maybe leased to third parties. Several scenarios are evident for the operation, management, and control of leased PA Operations.

In all scenarios the entity that has direct care and control over storage, handing and application of pesticides is required to be certified under the PAS Standards.

1. A certified Category 1 PA Operator leases ALL or PART of their space to a third-party grower but the PA Operator's staff operate the pesticide application process.

- In this scenario the Category 1 PA Operator is already certified.
- Given the PA Operator's staff have care and control of the pesticide storage and application process on behalf of the third-party grower, no additional audit requirements present.
- In order for the third-party grower to receive PCP registered products labelled for greenhouse use, the name of the grower and the term of the lease must be provided to the AWSA Program Manager (manager@awsa.ca) so the master list of certified growers includes the third-party grower. The third-party grower will then be able to access PCP registered products labelled for greenhouse use for application on crops at the leased location for the duration of the leased period.
- The Lessor is responsible for maintaining biennial re-audit requirements.

2. A certified Category 1 PA Operator leases PART of their space to a third-party grower, but the third-party's staff operate the pesticide application process.

- In this scenario the Category 1 PA Operator is already certified.
- Given the third-party's staff have care and control of the pesticide storage and application process a condensed audit is required (See matrix below for condensed audit requirements).
- In order for the third-party grower to receive PCP registered products labelled for greenhouse use, the name of the grower and the term of the lease must be provided to the AWSA Program Manager (manager@awsa.ca) so the master list of certified growers includes the third-party grower. The third-party grower will then be able to access PCP registered products labelled for greenhouse use for application on crops at the leased location for the duration of the leased period.
- For long term leases biennial re-audits are required. Both parties are responsible for maintaining biennial re-audit requirements.

3. A certified Category 1 PA Operator leases ALL their space to a third-party grower and the third-party's staff operate the pesticide application process.

- In this scenario the 3rd party has full control of the operation.
- A full audit, under the name of the 3rd party grower is required. Segments of the audit may include documentation from the lessor (i.e. Water management assessment). See matrix below for audit requirements.
- Certification will be issued in the name of the 3rd party grower.
- For long term leases biennial re-audits are required. Both parties are responsible for maintaining biennial re-audit requirements.

4. A third-party grower leases an un-certified PA operation.

- In this scenario the 3rd party has full control of the operation.
- A full audit, under the name of the 3rd party grower is required.
- Certification will be issued in the name of the 3rd party grower.
- For long term leases biennial re-audits are required by 3rd party grower.

**Audit Matrix for Leased Space
Scenario type by Protocol**

#	Scenario 1	Scenario 2	Scenario 3	Scenario 4
A1	Regular audit applies on regular audit cycle for Lessor	Documentation from lessor is acceptable provided processes are the same.	Documentation from lessor is acceptable provided processes are the same.	Full Audit applies. All program requirements apply.
A2		No additional requirements. Score as passed.	Auditor will confirm sign are still in place	
A3		No additional requirements. Score as passed.	Audit applies	
A4		Audit applies. Third party staff to be trained.	Audit applies	
A5		No additional requirements. Score as passed.	Audit applies	
A6		No additional requirements. Score as passed.	Audit applies	
A7		Audit applies. Third party staff must be able to access SDSs.	Audit applies	
A8		No additional requirements. Score as passed.	No additional requirements provided unchanged.	

#	Scenario 1	Scenario 2	Scenario 3	Scenario 4
A9	Regular audit applies on regular audit cycle for Lessor	No additional requirements. Score as passed.	No additional requirements provided unchanged.	Full Audit applies. All program requirements apply.
A10		No additional requirements. Score as passed.	No additional requirements provided unchanged.	
B1		Third party audited	Third party audited	
B2		Third party audited	Third party audited	
B3		Third party audited	Third party audited	
B4		Third party audited. SOPs from lessor accepted provided third party staff have been trained.	Third party audited. SOPs from lessor accepted provided third party staff have been trained.	
C1		No additional requirements. Score as passed.	No additional requirements. Score as passed.	
C2		Audit requirement depends on who is responsible (lessor, lessee or both).	Audit applies	
C3		Audit requirement depends on who is responsible (lessor, lessee or both).	Audit applies	
C4		Audit requirement depends on who is responsible (lessor, lessee or both).	Audit applies	
D1		Audited. SOPs from lessor accepted provided third party staff have been trained.	Audited. SOPs from lessor accepted provided third party staff have been trained.	
D2		Audited. SOPs from lessor accepted provided third party staff have been trained.	Audited. SOPs from lessor accepted provided third party staff have been trained.	
D3		Audited. SOPs from lessor accepted provided third party staff have been trained.	Audited. SOPs from lessor accepted provided third party staff have been trained.	
E1		ER plan from lessor accepted	Audited. Lessor's ER plan may be used provided updated for third party staff.	
E2		Third party staff must be trained and have completed at least one drill	Audit applies	

* Protocols C1 – C4 required for certification. All other protocols required for Certificate of Excellence (COE).

DEFINITIONS

Protected Ag: Protected Agriculture (PA) refers to crops that are grown under structures such as:

- Greenhouses
- Shade houses
- Hoop houses
- High tunnels
- Warehouses
- Freight container growing operations.

Category 1 Protected Ag Operation: All PA operations, of any crop, using closed-loop irrigation/chemigation systems. A closed system is one where any excess chemigation liquid delivered to the crop is captured via trough, drainage tile, or other similar conveyance system, rather than allowed to percolate into the ground. Warehouse production structures and freight container growing operations are excluded from Category 1.

Category 2 Protected Ag Operation: All PA operations, of any crop, using open irrigation/chemigation systems where excess chemigation liquid is not captured. Warehouse production structures and freight container growing operations are included in Category 2 regardless of the status of the chemigation system.

Chemigation system: All components of the water irrigation system used to apply chemicals to the growing medium of a crop including feedwater and transfer piping, mixing and holding tanks, injectors/pumps, mixing, anti-siphon and backflow devices. Also referred to as fertigation or recirculation systems.

Closed chemigation system: A water irrigation system designed to not allow transfer of treated irrigation water outside of the operation as discharges into the environment or storm water management systems including ebb and flow benches, trough benches, flooded floor systems, chemigated water capture and return lines, filter and disinfecting systems, catchment tanks, active floor drains and waste water lines. Also referred to as recirculation systems.

Containment: Physical means that a site may employ to manage pesticide spills. This may include dyking, spill pans or baffled pallets as a means of pesticide spill containment.

Pesticide mixing/loading area: A defined area where pesticides may be dispensed and mixed into holding tanks and/or where pesticide containers are affixed/loaded onto pumps or injectors for transfer to tanks as part of a chemigation system.

Pesticide storage area: A defined area designed for the storage of pesticides that are not currently being used.

PAS Technical Committee: A committee formed as a sounding board to inform decisions related to the delivery of the standard. The committee may include any or all of the following: grower organization representatives, individual growers, government extension staff, crop

protection industry representatives, ag-retail representatives, auditors. Membership will be defined by the Committee's Terms of Reference.

PCP registered products labelled for greenhouse use: Products registered under the *Pest Control Product Act* that have been approved specifically for greenhouse use. The Pest Management Regulators Agency's [label search tool](#) may be helpful in identifying these products.

Warehouse: The scope of the Code excludes warehouses for the definition of category 1 Protected Ag Operations. For the purposes of the Scope section, warehouse production structures are defined as fully enclosed buildings constructed of fixed walls, roofing and flooring that are used for indoor crop production using artificial sources for lighting. Greenhouses are excluded from this definition.

ACRONYMS

AWSA: Agricultural Warehousing Standards Association

CAT1: Category 1 Protected Agriculture Operator

CAT2: Category 1 Protected Agriculture Operator

COE: Certificate of Excellence

ER: Emergency Response

PA: Protected Agricultural

PAS: Protected Agricultural Stewardship

PCP: Pest Control Product

PMRA: Pesticide Management Regulatory Authority

SDS: Safety Data Sheets

SOP: Safe Operating Procedure

PROTOCOLS

A: PESTICIDE HANDLING, STORAGE & TRAINING

Protocol A1: Pesticide Flow Chart	Compliance
<p>a) The operation will have a current (dated) flow chart diagram showing the movement/use of all pesticides from storage to application to waste management.</p> <p>b) The Operation will have a current site sketch showing all structures. The location(s) of pesticide storage areas and all mixing/loading areas shall be noted.</p>	COE Requirement
<p>Audit Evidence:</p> <p>a) The auditor will review and discuss the flow chart diagram showing the movement/use of all pesticides from storage to application to waste management. This flow chart is to include:</p> <ul style="list-style-type: none"> - Pesticide storage area - All mixing/loading areas - Connection to foliar application units (if applicable). - Connection areas to chemigation system - Discharge/containment areas for wastewater (if applicable). <p>The pesticide flow chart diagram must be updated (and dated) when changes are made to the storage, mixing/loading or chemigation system.</p> <p>b) The auditor will review the site sketch. The sketch is to include:</p> <ul style="list-style-type: none"> • All structures on the site using closed loop chemigation • Location(s) of pesticide storage area(s) • Location(s) of loading/mixing area(s) for closed loop chemigation system • Location(s) of loading/mixing area(s) for foliar application. <p>Best Management Practice</p> <p>Include as part of the diagram identification of risks associated with handling and use of pesticides.</p>	

Protocol A2: Signage	Compliance
<p>In the pesticide storage area:</p> <ul style="list-style-type: none"> a) No smoking, drinking and eating sign is posted within or upon access to the pesticide storage area; b) Pesticide warning signs, clearly identifying that pesticides are stored within the premises and that only authorized personnel are entitled to enter, are fixed to all entrances to the storage area; <p>In the pesticide storage area and mixing/loading areas:</p> <ul style="list-style-type: none"> c) Signs are clearly posted and visible from both storage and mixing/loading areas indicating emergency supply cabinet, first aid kit and eyewash station. 	<p>COE Requirement</p>
<p>Audit Evidence:</p> <p>The auditor will inspect the pesticide storage area to assess compliance.</p> <ul style="list-style-type: none"> a) The presence of a permanent no smoking, drinking and eating sign is posted within the pesticide storage area. Pictograms are acceptable. Signs posted on the main access point to these areas is acceptable. b) The presence of pesticide warning signs fixed to or near all entrances to the storage area. If rollup doors are the primary access points, warning signage is required. If a fireproof cabinet is used for storage, these signs must also be displayed on the cabinet. c) The presence of signs visible from both the pesticide storage area and the pesticide mixing/loading indicating the location of the emergency supply cabinet, first aid kit and eyewash station. In the case of mobile applicators, these sign can also be affixed to the applicator. <p>Best Management Practice</p> <p>Sites are advised to maintain a pesticide inventory list of all products stored on site. Some jurisdictions may require that this information is shared with the fire department.</p>	

Protocol A3: Emergency Equipment	Compliance:
<p>a) The operation has an inventory list and location of designated emergency equipment and supplies that are stored in a specific location for use in an emergency.</p> <p>Emergency equipment at the operation includes:</p> <p>b) The presence of applicable emergency equipment</p> <ul style="list-style-type: none"> - First aid kit - Eyewash station <p>c) The presence of spill containment equipment including:</p> <ul style="list-style-type: none"> - Sealable salvage container - Absorbent materials - Aluminum shovel - Broom <p>d) In addition to the personal protection equipment specified in Protocol B3, the following designated emergency equipment is required:</p> <ul style="list-style-type: none"> - Gloves - Goggles - Coveralls/Apron - Respirators and chemical cartridges (if applicable as per label) 	<p>COE Requirement</p>
<p>Audit Evidence:</p> <p>a) The auditor will observe that a list of emergency equipment available at the operation is posted near, or on, the storage location for the equipment.</p> <p>b) the auditor will examine the emergency equipment to ensure it is usable, clean and adequately equipped. Eye wash stations must be capable of running for 15 minutes.</p> <p>c) The auditor will determine from sample SDS's what types of spill cleanup equipment and absorbents are required. The auditor will confirm these are available and are in good condition. Absorbent materials must be stored off the floor to avoid contact with liquids. Sealable salvage containers must be sufficient in size to hold a jug of product and have a snap/screw on lid.</p> <p>d) The auditor will determine from sample SDS's what types of clean up personal protection equipment is required. The auditor will confirm these are available and are in good condition. Personal protection equipment must be stored off the floor to prevent contamination.</p>	

Protocol A4: Employee Training	Compliance:
<p>Training for applicable employees has been provided on:</p> <ul style="list-style-type: none"> a) Use, maintenance and storage of pesticide-related PPE; b) The use of an eye wash station; c) Execution of the operation's Emergency Response Plan; and d) Safe pesticide storage, handling and operating procedures as applicable to their job function(s) as outlined in protocol B4. 	COE Requirement
<p>Audit Evidence:</p> <p>a) The auditor shall examine the training records for applicable employees who work in the pesticide storage and/or application area to verify training on the proper use, maintenance and storage of emergency PPE equipment. Training is to be provided upon hiring/change in job and is to be updated as PPE equipment changes or is added as per SDS's.</p> <p>b) The auditor shall examine the training records for applicable employees who work in the pesticide storage and/or application area to verify training on the proper use of an eye station. Training is to be provided upon hiring/change in job or change in safe operating procedures.</p> <p>c) The auditor shall examine the training records to ensure annual training has been provided to all staff on the emergency response procedures. Staff involved in execution of the emergency response plan have received annual training applicable to their role.</p> <p>d) The auditor shall examine the training records to ensure that all employees who work in the pesticide storage and mixing/loading areas have received training on storage procedures, operating procedure and safe pesticide handling. Training is to be provided upon hiring/change in job or change in safe operating procedures.</p>	

Protocol A5: Pesticide Storage	Compliance:
<p>All PCP registered products labelled for greenhouse use are stored in a dedicated pesticide storage area unless they are being actively used.</p> <p><i>Note: Totes of biological controls and mineral oils do not need to be stored in the dedicated storage space provided that:</i></p> <ul style="list-style-type: none"> • they are within a locked building and; • a containment system is in place. 	COE Requirement
<p>Audit Evidence:</p> <p>The auditor will observe the operation to verify that all PCP registered products labelled for greenhouse use that are not actively being used are stored in the pesticide storage area. This includes full or partially full containers/totes.</p>	

Protocol A6: Pesticide Containers	Compliance:
<ul style="list-style-type: none"> a) There are no leaking pesticide packages/containers. b) All empty pesticide containers have been triple rinsed and are stored in polyethylene bags or under cover. c) All pesticide storage containers on premises are labelled. 	COE Requirement
Audit Evidence: The auditor will observe: <ul style="list-style-type: none"> a) the pesticide packages/containers in the pesticide storage area and the pesticide mixing/loading area to ensure there are no leaking packages/containers. b) All empty pesticide containers are stored in polyethylene bags or under cover. c) All pesticides storage containers on premises have a supplier label, or a workplace label, or a label regulated by the Pest Control Act which make the reader aware of the potential hazards and risks when handling or using. Each regulated (WHMIS, TDG, PCP) chemical product requires the applicable supplier label. 	

Protocol A7: Safety Data Sheets	Compliance:
The operation has a copy of all current safety data sheets (SDS) for pesticides on-premises.	COE Requirement
Audit Evidence The auditor will verify the presence of the operation's safety data sheets (hard copy or electronic) for all pesticides on-premises. If in electronic format they must be readily accessible during operating hours.	

Protocol A8: Pesticide Storage Area	Compliance:
<p>The operation:</p> <ul style="list-style-type: none"> a) Has a dedicated controlled access space for the storage of pesticides. b) The pesticide storage area has a containment system in place to contain volumes of spilled liquids. c) The pesticide storage area does not have any active floor drains (unless directed to a dedicated catchment tank). d) The pesticide storage area has mechanical ventilation designed to provide a minimum of two air exchanges per hour when the area is occupied – OR – If the pesticide storage area is not of sufficient size to allow for a person to enter the area (i.e. cabinet, container, freezer, etc.) ventilation is not required unless provincially regulated. 	<p>COE Requirement</p>
<p>Audit Evidence:</p> <p>The auditor will:</p> <ul style="list-style-type: none"> a) examine the dedicated space for the storage of pesticides. A designated storage area can be achieved by a variety of methods: <ul style="list-style-type: none"> • A standalone room dedicated for pesticide storage. • A designated area within a larger room. • A non-combustible cabinet or container. <p>Dedicated storage spaces must be controlled for access. The purpose to prevent individual who have not been trained on pesticide handling, from accessing product. Examples of controlled access include:</p> <ul style="list-style-type: none"> • Locks on storage room doors or locks on the doors in which the storage room is located. • Locks on storage cabinets or locks on the doors in which the storage cabinet is located. b) examine the storage area containment system. All containment systems must be designed to contain 110% of the largest container in storage. Containment can be achieved by a variety of methods: <ul style="list-style-type: none"> • Concrete floors are an acceptable means of containment provided the following: <ul style="list-style-type: none"> • Concrete containment areas are to include retention curbing around the perimeter. • If the curbing is made of concrete that is not a single pour, caulking which is impervious to chemical spill absorption must be applied to ensure that spills cannot seep out through a crack. • Floors of the containment area must have had all cracks filled and have a smooth finish. The materials used to fill the cracks must be impervious to chemical spill absorption. Documentation is required to evidence the material is resistant to chemicals. 	

- If curbing (minimum of 10 cm in height) is made of a polymer material, the material must be affixed to a hard surface (i.e. wall/door sill) for stability and must be impervious to spills. Documentation is required to evidence the material is resistant to chemicals. Annual inspection for evidence of degradation is required and corrective action must be taken.
 - Metal containment trays are an acceptable means of containment. If metal containment trays are used as a means of containment the following must be achieved:
 - The containment areas are to include retention curbing (minimum of 10 cm in height) around the perimeter.
 - Angle iron must be made of sufficient gauge in order to prevent damage during routine operations or is firmly affixed to a wall.
 - Baffled spill pallets are acceptable as a means of containment. If baffled spill containment pallets are used as a means of containment the following must be achieved:
 - The baffled pallets must be constructed of a chemical resistant material.
 - The baffled pallets must be crack free.
 - Annual inspection for evidence of degradation is required and corrective action must be taken.
 - If using non-combustible cabinet/container, the cabinet/container must have containment capability. This can include designed containment as part of the structure, baffled pallets or metal trays.
- c) Observe that the pesticide storage area does not have any active floor drains (unless directed to a dedicated catchment tank).
- d) Examine the pesticide storage area to confirm the presence of mechanical ventilation designed to provide a minimum of two air changes per hour when the area is occupied. The auditor will examine the mechanical ventilation system and documentation for the storage area to confirm a minimum of two air changes per hour is achievable. The auditor will determine the system rating from the exhaust fan assembly documents signed by the installer or engineer's stamped drawings indicating exhaust rates of at least two air changes per hour. Technical information for the fan must be on file to indicate cubic feet per minute (CFM).

Leaving doors/windows open during operations is not sufficient. The ventilation system must be mechanical.

If there is an adjacent occupancy within the same building as the pesticide storage area the ventilation system does not draw air or allow air to transition from the pesticide storage area into the adjacent occupancy.

If using a non-combustible cabinet/container, the ventilation requirement does not apply unless provincially regulated.

Protocol A9: Pesticide Mixing/Loading Areas for Closed Loop Chemigation Systems (i.e. drench applications)	Compliance
<p>The operation:</p> <ul style="list-style-type: none"> a) Has a defined space for the mixing/loading of pesticides into the closed loop chemigation system. b) The mixing/loading area has a containment system in place to contain volumes of spilled liquids. c) The mixing/loading area does not have any active floor drains (unless directed to a dedicated catchment tank). d) The mixing/loading area has mechanical ventilation designed to provide a minimum of two air exchanges per hour when the area is occupied. – or – the absence of mechanical ventilation, a safe operating procedure is in place requiring vents/windows be open during pesticide transfer activities. 	COE Requirement
<p>Audit Evidence:</p> <p>The auditor will:</p> <ul style="list-style-type: none"> a) Examine the defined space for the mixing/loading of pesticides into the closed loop chemigation systems. b) Examine the mixing/loading area containment system. All containment systems must be designed to contain 110% of the largest container in use. Containment can be achieved by a variety of methods: <ul style="list-style-type: none"> • Concrete floors are an acceptable means of containment provided the following: <ul style="list-style-type: none"> • Concrete containment areas are to include retention curbing (minimum of 10 cm in height) around the perimeter. • If the curbing is made of concrete that is not a single pour, caulking which is impervious to chemical spill absorption must be applied to ensure that spills cannot seep out through a crack. • Floors of the containment area must have had all cracks filled and have a smooth finish. The materials used to fill the cracks must be impervious to chemical spill absorption. • If curbing (minimum of 10 cm in height) is made of a polymer material, the material must be affixed to a hard surface (i.e. wall/door sill) for stability and must be impervious to spills. Documentation is required to evidence the material is resistant to chemicals. Annual inspection for evidence of degradation is required and corrective action must be taken. • Metal containment trays are an acceptable means of containment. If metal containment trays are used as a means of containment the following must be achieved: 	

- The containment areas are to include retention curbing around the perimeter of the area pesticides are handled.
 - Angle iron must be made of sufficient gauge in order to prevent damage during routine operations or is firmly affixed to a wall.
- c) Observe that the pesticide mixing/loading area does not have any active floor drains (unless directed to a dedicated catchment tank).
- d) Examine the pesticide mixing/loading area to confirm the presence of mechanical ventilation designed to provide a minimum of two air changes per hour when the area is occupied. The auditor will examine the mechanical ventilation system and documentation for the storage area and mixing/loading area to confirm a minimum of two air changes per hour is achievable. The auditor will determine the system rating from the exhaust fan assembly documents signed by the installer or engineer's stamped drawings indicating exhaust rates of at least two air changes per hour. Technical information for the fan must be on file to indicate cubic feet per minute (CFM).

If there is an adjacent occupancy within the same building as the mixing/loading area the ventilation system does not draw air or allow air to transition from the pesticide storage area into the adjacent occupancy.

– Or –

In the absence of mechanical ventilation, a safe operating procedure is in place requiring vents/windows be open during pesticide transfer activities. The auditor will review the SOP and confirm the location vents/windows and confirm they are operable.

Protocol A10: Pesticide Mixing/Loading Areas for Foliar Application	Compliance
<ul style="list-style-type: none"> a) The operation has a portable spill kit in close proximity to the foliar mixing/loading areas. b) If the eyewash station is not within 15 metres from the application area, a portable eyewash bottle is present. 	COE Requirement
Audit Evidence <ul style="list-style-type: none"> a) The auditor will observe that the operation has a portable spill kit in close proximity to the foliar mixing/loading areas. b) The auditor will observe that an eyewash station is within 15 metres of the application area or look for the presence of an eyewash bottle. 	
Best Management Practice <p>The mixing/loading area for foliar application has a containment system in place to contain volumes of spilled liquids. This can be achieved by a containment tray affixed to application equipment.</p>	

B: PESTICIDE APPLICATION

Protocol B1: Pesticide Application Documentation	Compliance:
The operation has documented all pesticide applications (incl. time of application, pest identified, application rate and other applicable information based on the products used).	COE Requirement
Audit Evidence The auditor will verify the presence of the operation's pesticide application documentation. See compliance assistance Manual (www.awsa.ca) for examples of pesticide application tracking templates.	

Protocol B2: Provincial Certification	Compliance:
The individual responsible for the operation (or designate) has obtained applicable provincial pesticide application certification.	COE Requirement
Audit Evidence The auditor will verify the applicable provincial pesticide application certification is valid. See compliance assistance Manual (www.awsa.ca) for list of provincial requirements.	

Protocol B3: Personal Protection Equipment	Compliance:
All employees handling pesticides have applicable personal protection equipment (PPE) for use while handling pesticides.	COE Requirement
Audit Evidence The auditor will determine from sample SDS's and product labels what types of personal protection equipment is required. The auditor will confirm these are available and are in good condition. Personal protection equipment must be stored off the floor to prevent contamination.	

Protocol B4: Safe Operating Procedures	Compliance:
The site has developed and implemented written safe pesticide storage, handling and operating procedures (SOPs) for all positions handling pesticides.	COE Requirement
Audit Evidence The auditor will verify the presence of written safe pesticide storage, handling and operating procedures. The auditor will review the procedures to determine if they have been implemented. Procedures must be specific to equipment used. (Reference Protocol A4)	

C: WATER ASSESSMENT AND EQUIPMENT MANAGEMENT (MANDATORY)

Protocol C1: Water Management Assessment	Compliance:
<p>Operation has undertaken a water-management assessment that has either been delivered or observed by an independent third party every six years that validates the facility's closed recirculation system.</p> <p>IF a renovation or reconfiguration of the chemigation system occurs, a water management assessment must be undertaken and passed upon the modifications being completed.</p> <p>See accompanying Protocol C1 – Water Assessment Manual for further details.</p>	Mandatory for PAS Certification
<p>Audit Evidence:</p> <p>The auditor will review records on file to verify that a water-management assessment has been successfully completed within the last six years. This includes addressing any deficiencies noted as part of the assessment.</p>	

Protocol C2: Chemigation System Monitoring	Compliance:
<p>Operation has management plan in place to monitor its closed chemigation system to verify the system is working as intended.</p>	Mandatory for PAS Certification
<p>Audit Evidence</p> <p>The auditor will verify the presence of operation's management plan. Monitors could include:</p> <ul style="list-style-type: none"> a) Nutrient monitoring in retention ponds as an indicator for pesticide levels. b) Pressure monitoring systems. <p>Presence of a regulated wastewater discharge monitoring plan would be deemed equivalent. See supporting document for examples of sample plans and templates.</p>	

Protocol C3: Chemigation System Maintenance	Compliance:
A formal process and schedule are in place to routinely inspect and maintain the closed chemigation system and its components (e.g., injectors, pump etc.) in accordance with manufacturer specifications. This includes a process for employees to identify deficiencies and a process for follow up and correction. The process should also include activities undertaken as year-end or crop-end maintenance.	Mandatory for PAS Certification
Audit Evidence: The auditor will verify the presence of: <ul style="list-style-type: none"> a) A documented plan for ongoing and year-end or crop-end maintenance, b) the operation's inspection logs and records of actions taken to correct deficiencies, c) that annual or crop-end maintenance and cleaning has been completed. See supporting compliance assistance Manual (www.awsa.ca) for examples of various sample plans and templates.	

Protocol C4: Spill Response Plan	Compliance:
A plan is established to respond to and report major spills originating from the operation's closed recirculation system. This could include leaks within the operation or leaks that result in contamination of stormwater water ponds and/or surface water sources.	Mandatory for PAS Certification
Audit Evidence: The auditor will verify the presence of a spill response plan. The plan shall contain at a minimum: <ul style="list-style-type: none"> a) A list of responsible persons including contact information, b) Steps to be taken to limit the extent of the spill and/or prevent ongoing discharge to surface water sources, c) The procedure and contact information for the appropriate regulatory body to report the spill if applicable. See supporting compliance assistance Manual (www.awsa.ca) for examples of various sample plans.	

D: SITE MANAGEMENT

Protocol D1: Emergency Equipment Maintenance	Compliance:
<p>The site has written procedures for the maintenance and restocking of the following emergency and safety equipment:</p> <ul style="list-style-type: none">a) First aid kit;b) Eyewash station;c) PPE; andd) Spill cleanup equipment and supplies.	COE Requirement
<p>Audit Evidence:</p> <p>The auditor will inspect the written operating procedures for the maintenance of emergency equipment together with past inspection reports to ensure required maintenance and restocking is being completed at the prescribed frequency. This should include checking the expiration dates on relevant products. (Cross reference A3 & B3).</p> <p>Examples of procedures are available in the Compliance assistance Manual (www.awsa.ca).</p>	

Protocol D2: Handling Procedures for Hazardous Waste	Compliance:
<p>The operation has written procedures for the proper handling, storage and disposal of pesticide contaminated products, spill absorbents, rinsate, hazardous waste and other wastes that meet all legal requirements.</p>	COE Requirement
<p>Audit Evidence:</p> <p>The auditor will inspect the operation's written procedures for the proper handling, storage and disposal of pesticide contaminated products, spill absorbents, rinsate and other hazardous materials. Procedures will include management of overflow from retention ponds. (Cross reference A4).</p> <p>Examples of procedures are available in the Compliance Assistance Manual (www.awsa.ca).</p>	

Protocol D3: Accident & Incident Procedures	Compliance:
The operation has established a procedure requiring all pesticide storage and/or application-related accidents/incidents to be investigated, recorded, and reported.	COE Requirement
<p>Audit Evidence:</p> <p>The auditor will verify the presence of operation's accidents/incidents documentation process.</p> <p>See Compliance Assistance Manual (www.awsa.ca) for examples of sample policies and templates.</p> <p>Note: Reference CSA Z1005 Incident Investigation Standard.</p>	

E: EMERGENCY RESPONSE

Protocol E1: Emergency Response Plan	Compliance:
<p>The operation has a written Emergency Response (ER) Plan that has been reviewed and dated within the past 12 months that includes the following information:</p> <ul style="list-style-type: none">a) An index that references page numbers.b) An organizational chart that details the following:<ul style="list-style-type: none">i) The responsibilities of each employee on the organizational chart;ii) The telephone numbers of all emergency responders, employees, local medical facilities, governmental agencies, product suppliers and environmental services companies;iii) A drawing of the site plan indicating the relative locations of emergency response equipment and supplies, the pesticide storage area, the pesticide mixing/loading area, emergency control centres and emergency exit routes;iv) A written management plan for spilled pesticides;v) A list of the distribution of the ER plan;vi) A list of events that activate the ER plan.	COE Requirement
<p>Audit Evidence:</p> <p>The auditor will inspect the written ER Plan to ensure it includes all elements. The ER Plan must be contained in a separate binder/booklet/document (electronic or hard copy) in an organized fashion and be readily available. The Auditor will confirm that all employees on the distribution list of the ER Plan have individual, separate ER plans. The ER plan will be dated with the date of the last revision.</p> <p>Sample Emergency response plan is available in the Compliance Assistance Manual.</p> <p>Best Management Practice</p> <p>Sites are advised to maintain a pesticide inventory list of all products stored on site. Some jurisdictions may require that this information is shared with the fire department.</p>	

Protocol E2: Emergency Drills	Compliance:
<p>Using the operation's ER Plan, the management team has</p> <ul style="list-style-type: none"> a) Conducted annually, either one table-top exercise on a simulated emergency or one physical drill on simulated emergency. b) Based on the exercise/drill updated the ER plan as necessary. 	COE Requirement
<p>Audit Evidence:</p> <p>The Auditor will inspect records to ensure at least either one table-top exercise on a simulated emergency has been completed within the last 12 months or at least one physical drill on simulated emergency has been completed within the last 12 months.</p> <p>Examples of a physical drill or simulated emergency could include a product spill, mock fire, medical emergency or flood. Where the owner is the sole operator, an exemption applies.</p>	