

## ANNEX T-2

### TEMPLATE: FOOD COMMODITY PROTECTION PERSUAP FOR PHOSPHINE FUMIGATION & CONTACT PESTICIDES

The following is a fill-in template for a Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) for Commodity Protection by Phosphine Fumigation & Contact Pesticides, and one of the tools of the Fumigation PEA.

New Food Assistance Programs supporting phosphine fumigation **MUST** have an approved Fumigation PERSUAP in place **BEFORE** supporting phosphine fumigation. If contact (residual) pesticides are to be used as a complement to fumigation, the Fumigation PERSUAP must also cover their use. (The sole exception is if such the program has another PERSUAP, e.g. for use of pesticides in agricultural production, and contact pesticide is covered by this PERSUAP.)

For additional information, refer to Annex T-1 of the Fumigation PEA, which describes the purpose of the PERSUAP and summarizes the requirements it establishes.

The template is highly detailed with respect to Aluminum Phosphide. It is necessarily less detailed for contact (residual) pesticides, as there are a large number of potential products that may be used. Examples of simple PERSUAPs in USAID's database of 22 CFR 216 documentation can provide guidance as to how to fill in the various fields.

**In areas where Partners are unable to meet the implementation and reporting conditions described herein, they must request an exception from USAID. All substantive changes must be approved.**

Step 1: click: <http://gemini.info.usaid.gov/egat/envcomp/>

Step 2: Click on the "Advanced Search" tab

Step 3: in the first field "Source Document Text Search" enter the name of the contact pesticide that you seek to use.

Step 4: Click on "search" and then on the "PDF" link to view the resulting documents.

This is a **Food Commodity Protection PERSUAP template**. **Instructions:** Review full text of document. Fill in or replace all **green-highlighted** fields. If a contact pesticide is to be used, include/fill-in **yellow-highlighted** fields; otherwise delete. Alter any provided text not applicable to your program; however, be advised that substantive changes to safer use measures may not be approved by USAID. If you wish to make a substantive change to this template you must request an exception from USAID, **Delete this box & clear highlighting before submitting to USAID.**

**USAID INITIAL ENVIRONMENTAL EXAMINATION- AMENDMENT FACESHEET  
PESTICIDE EVALUATION PLAN AND SAFER USE ACTION PLAN (PERSUAP) FOR  
COMMODITY PROTECTION BY PHOSPHINE FUMIGATION & CONTACT PESTICIDES**

Activity/Project Title: <b>INSERT TITLE</b>	
Contract/Award Name(s) & Number(s) (if known) : <b>Insert contract/ award name and number</b>	
Geographic Location: <b>Insert implementation country and region e.g. Ethiopia/Africa</b>	
Operating Unit(s):	
IEE Amendment (Y/N): YES	DCN and Date of Original IEE: <b>insert PEA clearance date</b>
	Env Compl Database link: <b>insert link to PEA on ECD</b> <a href="http://semini.info.usaid.gov/ewat/envcomp/">http://semini.info.usaid.gov/ewat/envcomp/</a>
Annual Funding Amount (optional field):	Life of project Amount:
Implementation Start/End:	
IEE Prepared by: <b>Insert name, organization, contact info</b>	
Date Prepared: Updated September 2015	PEA Expiration Date (if any): September 2020
Implementing Partner(s):	
<b>Recommended Threshold Determination:</b> <input checked="" type="checkbox"/> Categorical Exclusion <input type="checkbox"/> Negative Determination <input checked="" type="checkbox"/> With Conditions	<input type="checkbox"/> Positive Determination <input type="checkbox"/> Deferral

**Note:** SUAP requirements (see sections 6 and 7 of this PERSUAP Template) will be incorporated as needed into program Detailed Implementation Plan (DIP) and Budget

**SUMMARY OF FINDINGS**

Phosphine fumigation of food commodities **and complementary use of the contact pesticide** **[insert product name]** **in and around food commodity warehouses** for the **XXX** Program is approved subject to compliance with the Safer Use Action Plan (SUAP) that constitutes sections 6 and 7 of the PERSUAP Template. The SUAP imposes the mitigation requirements (safer use conditions) established by the Programmatic Environmental Assessment “Phosphine Fumigation of Stored Agricultural Commodity.”

**LIST OF CONDITIONS**

**Condition 1:** A **Fumigation Management Plan (FMP)** must describe the fumigation process, including for fumigant pesticide use, storage, transport and disposal. The FMP and the actual fumigation process will substantively conform to the plan provided as Tool T-3 (Template of the FMP) of the Fumigation PEA. This FMP must include the following details on the fumigation equipment:

- 1a). Gas monitoring Equipment:** Brand name, model and type of phosphine gas monitoring equipment (electrochemical, photo-ionization or tube type)
- 1b) Personal Protection Equipment:** including gas canister masks or self-contained breathing apparatus
- 1c) Gas impermeable tarps:** resistant to UV light and tearing along both length and width, and impermeable to phosphine gas

The **TOPS Warehouse Safety [Guidelines](#) and [Posters](#)** detailing the safety measures to take before, during and after fumigation, as well as proper disposal and cleanup procedures after fumigation can also be consulted.

**Condition 2:** Any additional **Contact Pesticide(s)** used in warehouse commodity protection must be limited to the pesticide(s) authorized by the PERSUAP and should substantively conform to contact pesticide best practices as set out in Fumigation PEA [Annex T-6](#) on “IPM PRACTICES & INSPECTION CHECKLIST FOR USAID-FUNDED COMMODITIES AND WAREHOUSES”. The PERSUAP will also include information on the safe use measures and personal protection equipment used in the application of the contact pesticide(s), as well as contact pesticide storage, transport and disposal.

**Condition 3: Good Housekeeping and IPM Measures.** The implementing partner must fully implement the daily/weekly warehouse and commodities inspection checklist ([Annex T- 6](#) on IPM PRACTICES) and take maintenance/corrective actions specified. Compliance with this checklist implements a set of IPM measures that are essential complements to fumigation. The implementing partner will also only purchase commodity that is at 13% or less moisture and distribute stocks as quickly as possible in order to ensure full protection against fungal growth, since fungal growth and mycotoxin production cannot be completely controlled by phosphine fumigation.

**Condition 4: Fumigation Contract Language** When using a 3<sup>rd</sup>-Party Fumigation Service Provider, the provided model RFQ and contract (or substantive equivalent) will be used to procure fumigation services and proposals/quotes will be evaluated based on ability to comply with specified safer use practices, including the procurement and use of gas monitoring equipment, fumigation and contact pesticide PPE as well as gas impermeable tarps meeting specified requirements.

**Condition 5:** The implementing partner will actively **monitor compliance** with the above-listed conditions and undertake **corrective actions** as needed.

**APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED FOR:**

Fumigation PERSUAP for [Name of Program]

**A. CLEARANCE**

_____	Date _____
Mission Environmental Officer	
_____	Date _____
Regional Environmental Advisor/Officer*	
_____	Date _____
Mission Director	
_____	Date _____
A/COR	
_____	Date _____
Office Director (as applicable)	

**B. CONCURRENCE**

_____	Date _____
Bureau Environmental Office <sup>1</sup>	

Accepted:

Not Accepted:

\*Mandatory for non-presence countries

<sup>1</sup> Refer to the appropriate office: [http://www.usaid.gov/our\\_work/environment/compliance/environmental-compliance-officers](http://www.usaid.gov/our_work/environment/compliance/environmental-compliance-officers)

# USAID INITIAL ENVIRONMENTAL EXAMINATION- AMENDMENT Pesticide Evaluation Plan and Safer Use Action Plan (PERSUAP) for Commodity Protection by Phosphine Fumigation & Contact Pesticides

## USAID PROGRAM DATA

Program Name: Insert  
Awardee: insert organization  
Country/Region: insert country/region  
Period of Performance: X years (start date – end date)

## I. PURPOSE AND SCOPE OF PERSUAP

Upon approval, this Fumigation PERSUAP, submitted as an amendment to the [insert program name] IEE will authorize phosphine fumigation of [insert program name] food commodities. This PERSUAP will also authorize complementary use of the contact pesticide(s) [insert product names] in and around empty warehouses for these commodities. Fumigation and contact pesticide use is authorized subject to strict safer use conditions. As described herein, use of fumigation and contact pesticide is necessary for successful program implementation.

Formally, approval of this PERSUAP will assign a **negative determination** to phosphine fumigation and use of the contact pesticide [insert product name], subject to the **condition** that the Safer Use Action Plan provided as Sections 6 and 7 of the PERSUAP Template, is fully implemented.

This PERSUAP satisfies the requirements of 22 CFR 216.3(b) (USAID Pesticide Procedures) and puts in place the safer use requirements (mitigation measures) established by the USAID Programmatic Environmental Assessment “Phosphine Fumigation of Stored Agricultural Commodity” (Henceforth the “[Fumigation PEA](#).”)<sup>2</sup>

## 2. PROGRAM DESCRIPTION

Provide a BRIEF (not more than 1 or 2 paragraph description) of the program

## 3. COMMODITY PROTECTION NEEDS

List the food commodities being managed. Provide general information about the length of time commodities are typically stored in primary and secondary warehouses. List known pest problems and succinctly describe consequences of failure to adequately control commodity pests. **Do not spend more than 1 or 2 paragraphs on this section.**

The Fumigation PEA establishes that food commodity protection by fumigation addresses food commodity protection needs that can rarely be completely replaced by other methods. It also establishes that the complementary use of contact pesticide in and around warehouses is usually an integral part of the fumigation process to kill insects escaping fumigation and prevent re-infestation of the commodity.

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<sup>2</sup> Approved (insert date). Available on: [http://www.usaidgems.org/Documents/FumigationPEA/FumigationPEAFeb24\\_2014.pdf](http://www.usaidgems.org/Documents/FumigationPEA/FumigationPEAFeb24_2014.pdf)

#### 4. PROPOSED PESTICIDE(S).

This PERSUAP requests approval to use aluminum phosphide<sup>3</sup> as an indoor fumigant at storage facilities for the following commodities: **insert commodity names**. Use is requested of both pellet and tablet formulations with 55-57% active ingredient.

This PERSUAP also requests approval to use the contact pesticide **insert product name** as a complement to fumigation in and around food commodity warehouses.

#### 5. FACTOR ANALYSIS PER 22 CFR 216.3(B)(1)(I)(A THROUGH L)

This section provides the 12-factor analysis required by 22 CFR 216.3(b) to allow USAID to make a determination as to whether to permit use of a proposed pesticide and to establish appropriate safer use conditions.

Separate Factor Analyses are provided for (1) Aluminum Phosphide and (2) **insert name of contact pesticide**.

##### FACTOR ANALYSIS FOR ALUMINUM PHOSPHIDE

ANALYSIS FACTOR	ANALYSIS
<p><b>(a) USEPA registration status of the proposed pesticide.</b></p> <p><b>Partner country registration status</b></p>	<p>Aluminum phosphide is an inorganic phosphide registered in the U.S. under CAS Number 20859-73-8 with U.S. EPA PC Code 066501. Aluminum phosphide is a Restricted Use Pesticide (RUP) so in the US may be purchased and used only by certified applicators. It is in EPA's toxicity Class I, and products containing it must bear the signal word DANGER. In contact with water, it produces a toxic gas <i>hydrogen phosphide</i>. Aluminum phosphide is widely used for fumigation of food commodities and structures.</p> <p><b>Provide analogous partner country registration information and any restrictions established by this registration.</b></p>
<p><b>(b) Basis for selection of the pesticide</b></p>	<p>The selection of aluminum phosphide is based on: efficacy against pests of stored grains, low cost, availability in country, and registration in country.</p> <p>If used in accordance with safeguards, aluminum phosphide is not expected to have adverse environmental impacts; this is also a factor in its selection.</p> <p>Efficacy and the effectiveness of use safeguards have already been assessed extensively in the Fumigation PEA and thus are not addressed further here.</p> <p><b>The selection was also based on the availability of a qualified professional service provider for phosphine fumigation.</b></p>
<p><b>(c) Extent to which the proposed pesticide use is, or</b></p>	<p>The Safer Use Action Plan requires compliance with <a href="#">Fumigation PEA Annex T-6</a> on IPM PRACTICES. This checklist contains good-housekeeping based Integrated Pest Management (IPM) practices that are essential complements to fumigation, including</p>

<sup>3</sup> It should be noted here that Phosphine Fumigation refers to fumigation with aluminum phosphide

<p><b>could be, part of an IPM program</b></p>	<p>daily sanitation of the warehouse; clearing warehouse surroundings of weeds on a weekly basis; daily inspections for pests; and strictly adhering to the first in first out (FIFO) rule to minimize the storage time of the commodities in the warehouse.</p> <p>(List any additional IPM food commodity protection practices to which the program is committing.)</p>
<p><b>(d) Proposed method or methods of application, including the availability of application and safety equipment</b></p>	<p>Aluminum phosphide will be used for indoor fumigation of warehoused food commodities in sheeted stacks only. It should be noted that the uses specified for Aluminum phosphide in this PERSUAP DO NOT cover outdoor fumigation and soil fumigation.</p> <p>Via the <a href="#">Fumigation Management Plan</a>, the SUAP requires that fumigation follow acceptable technical practices specified in <a href="#">Annex T-7</a> on “FUMIGATION AND CONTACT PESTICIDE BEST MANAGEMENT PRACTICES” of the Fumigation PEA. These include, among others, use of appropriate personal protection equipment, including respirators, maintenance of an exclusion zone that only fumigation personnel can enter for duration of the fumigation (7-10 days or more)<sup>4</sup>, and phosphine gas monitoring for efficacy and hazard.</p> <p>Note if the program’s fumigation services provider will provide PPE and monitoring equipment, or if the program will do so.</p>
<p><b>(e) Any acute and long-term toxicological hazards, either human or environmental, associated with the proposed use, and measures available to minimize such hazards.</b></p>	<p>The potential toxicological effects of aluminum phosphide are well covered by EXTOXNET, and Extension Toxicology Network.* The Fumigation PEA includes details of acute human health exposure and potential impacts to fumigators, other on-site workers, visitors, nearby residents and beneficiaries. In summary:</p> <ul style="list-style-type: none"> <li>• The main routes of exposure to aluminum phosphide are through inadvertent ingestion or inhalation during fumigation of the highly toxic gas.</li> <li>• Symptoms of mild to moderate acute aluminum phosphide toxicity include nausea, abdominal pains, tightness in chest, excitement, restlessness, agitation and chills. Symptoms of more severe toxicity include diarrhea, cyanosis, difficulty breathing, pulmonary edema, respiratory failure, tachycardia and hypotension, dizziness and or death.</li> <li>• The available evidence for reproductive effects in animals suggests that they are not likely in humans under normal conditions. No evidence is available to support teratogenic effects in humans or to support the ability of aluminum phosphide to cause mutations or increase mutation rates.</li> <li>• There is no evidence of aluminum phosphide having a negative impact on soil or ground water. It breaks down spontaneously in the presence of water to form a gaseous product, thus is non-persistent and non-mobile in soil and poses no risk to groundwater. For the same reasons, it is unlikely that aluminum phosphide or phosphine will contaminate surface waters.</li> <li>• The USEPA has determined that uses of aluminum phosphide will not generally cause unreasonable adverse effects to humans or the environment if used in</li> </ul>

<sup>4</sup> There is some controversy over the optimal exposition time to respect from fumigating the warehouse to aerating it after the phosphine gas has dissipated, for efficient pest control. For any clarifications, please contact the DCHA BEO ([eclesceri@usaid.gov](mailto:eclesceri@usaid.gov))

	<p>accordance with the approved use directions and revised precautionary statements prescribed by the registration standard. Requirements for acute toxicity data have been waived because of the well-known extreme inhalation toxicity of phosphine gas, which it generates. Accordingly, aluminum phosphide has been placed in toxicity category I, the highest toxicity category.</p> <p>Tolerances have been established for raw agricultural commodities at a level of 0.1 ppm (40 CFR 180.225); processed foods 0.01 ppm (21 CFR 193.20); and animal feeds 0.1 ppm (40 CFR 561.40). Finished food and feed must be held and aerated 48 hours prior to being offered to the consumer.</p> <p>Via the <a href="#">Fumigation Management Plan</a>, the SUAP requires that fumigation follow acceptable technical practices specified in <a href="#">Annex T-7</a> on BEST MANAGEMENT PRACTICES of the Fumigation PEA. These include, among others, use of appropriate personal protection equipment, including respirators, maintenance of an exclusion zone that only fumigation personnel can enter for duration of the fumigation (7-10 days or more), and phosphine gas monitoring for efficacy and hazard.</p> <p><a href="http://pmep.cce.cornell.edu/profiles/extoxnet/24d-captan/aluminum-phosphide-ext.html">*http://pmep.cce.cornell.edu/profiles/extoxnet/24d-captan/aluminum-phosphide-ext.html</a></p>
<p><b>(f) Effectiveness of the requested pesticide for the proposed use.</b></p>	<p>Aluminum Phosphide is registered by US EPA as stored grain pesticide. It is considered the most effective method of controlling stored commodity pests, especially when used in an IPM framework, as described above in (c).</p> <p>In-country experience is that this fumigant is very effective in killing the intended targets noted in section 3 within the prescribed seven to ten day fumigation time.</p> <p><b>Describe any resistance reported or known to you. If none, "We are not aware of any instances of resistance to aluminum phosphide by the intended target pests."</b></p>
<p><b>(g) Compatibility of the proposed pesticide use with target and non-target ecosystems.</b></p>	<p>As an indoor fumigant, aluminum phosphide presents risks to fumigators and those working or living nearby, but there is not a "target ecosystem" of concern.</p> <p>Indoor use, non-persistence and non-mobility in soil, negligible potential to contaminate surface waters, and a short half-life in air of ~5 hrs (daylight) mean that aluminum phosphide has essentially no interaction with or impact on non-target ecosystems.</p>
<p><b>(h) The conditions under which the pesticide is to be used, including climate, flora, fauna, geography, hydrology, and soils</b></p>	<p>As noted, aluminum phosphide will be used solely for indoor fumigation of warehoused food commodities: <b>Briefly describe the warehouse(s) in which fumigation will occur, their setting, proximity to other structures &amp; their uses.</b></p> <p>Indoor use, non-persistence and non-mobility in soil, and negligible potential to contaminate surface waters (see "factor e," analysis, above) mean that geography, hydrology and soils have negligible bearing on safety, efficacy or appropriateness.</p> <p>Climate is relevant only in that extremely dry air can retard formation of phosphine gas from phosphine tablets, requiring appropriate adjustments to fumigation protocols. This <b>is/is not</b> anticipated to be an issue in <b>XXX</b>, where typical indoor temperatures will</p>



	range between X°C & Y°C and humidity between X and Y%.
<b>(i) The availability and effectiveness of other pesticides or nonchemical control methods</b>	<p>The fumigation PEA assesses the effectiveness and availability of non-chemical control methods, including weekly inspection for signs of rodents, weeding the perimeter around the warehouse, cleaning up spills and trash, ensuring that the warehouse doors, roofs, walls etc. are in good condition (Refer to <a href="#">Annex T-6</a> on IPM PRACTICES. As noted, the Safer Use Action Plan requires good housekeeping IPM measures such as daily sanitation of the warehouse and weekly clearing of warehouse surroundings of weeds; daily inspections for pests and strictly adhering to the first in first out (FIFO) rule to minimize the storage time of the commodities in the warehouse.</p> <p>The complementary contact pesticide [insert name] will be used to kill insects escaping fumigation and prevent re-infestation of the commodity. As documented by the PEA, such complementary use of contact pesticide(s) in and around warehouses is usually an integral part of the fumigation process.</p>
(j) The requesting country's ability to regulate or control the distribution, storage, use and disposal of the requested pesticide	<p>Partner country registration status is documented under Factor A, above.</p> <p>Note whether phosphine fumigation requires a license in your partner country, and the requirements for obtaining such a license. Note whether such licensing is meaningfully enforced.</p>
(k) The provisions made for training of users and applicators	<p>Regardless of partner country licensing, describe the training standard of fumigator service provider personnel.</p>
(l) The provisions made for monitoring the use and effectiveness of the pesticide	<p>The SUAP requires a <a href="#">Fumigation Management Plan</a> that serves as detailed log of each fumigation episode. The FMP requires efficacy monitoring of phosphine gas concentrations to better assure that required concentrations are attained for the required period. This is critical to the efficacy of the individual fumigation and to preventing emergence of resistance. Monitoring of commodities for infestation is a routine element of program management; quick re-infestations are the primary indicator that fumigation is ineffective.</p>

**FACTOR ANALYSIS FOR [INSERT NAME OF CONTACT PESTICIDE]**

ANALYSIS FACTOR	ANALYSIS
<b>(a) USEPA registration status of the proposed pesticide.</b>	<p>Provide EPA registration status. Note that the pesticide must be registered for the same or similar uses by US EPA.</p>
<b>Partner country registration status</b>	<p>Provide analogous partner country registration information and any restrictions established by this registration. Note that the pesticide must be registered in the partner country AND by US EPA.</p>
<b>(b) Basis for selection of the pesticide</b>	<p>Availability, cost, efficacy, and relatively low toxicity to humans and non-target organisms should be key selection factors.</p>
<b>(c) Extent to which</b>	<p>The Safer Use Action Plan (SUAP) requires compliance with Fumigation PEA <a href="#">Annex T-6</a></p>

<p><b>the proposed pesticide use is, or could be, part of an IPM program</b></p>	<p>on IPM PRACTICES. This checklist contains good-housekeeping based Integrated Pest Management (IPM) practices that are essential complements to fumigation, including daily sanitation of the warehouse; clearing warehouse surroundings of weeds on a weekly basis; daily inspections for pests; and strictly adhering to the first in first out (FIFO) rule to minimize the storage time of the commodities in the warehouse.</p> <p>(List any additional IPM food commodity protection practices to which the program is committing. )</p>
<p><b>(d) Proposed method or methods of application, including the availability of application and safety equipment</b></p>	
<p><b>(e) Any acute and long-term toxicological hazards, either human or environmental, associated with the proposed use, and measures available to minimize such hazards.</b></p>	
<p><b>(f) Effectiveness of the requested pesticide for the proposed use.</b></p>	<p>Describe any resistance reported or known to you.</p>
<p><b>(g) Compatibility of the proposed pesticide use with target and non-target ecosystems.</b></p>	
<p><b>(h) The conditions under which the pesticide is to be used, including climate, flora, fauna, geography, hydrology, and soils</b></p>	<p>This pesticide will be used solely for spraying the interior and immediate perimeter of empty warehouses. The settings for these warehouses are described under the factor analysis for aluminum phosphide, above.</p> <p>Follow with additional relevant information.</p>
<p><b>(i) The availability and effectiveness of other pesticides or nonchemical control methods</b></p>	<p>The fumigation PEA assesses the effectiveness and availability of non-chemical control methods. As noted, the Safer Use Action Plan requires good housekeeping IPM measures such as daily sanitation of the warehouse and weekly clearing of warehouse surroundings of weeds; daily inspections for pests and strictly adhering to the first in first out (FIFO) rule to minimize the storage time of the commodities in the warehouse.</p> <p>The complementary contact pesticide [insert name] will be used to kill insects escaping fumigation and prevent re-infestation of the commodity. As documented by the PEA,</p>

	such complementary use of contact pesticide in and around warehouses is usually an integral part of the fumigation process.
(j) The requesting country's ability to regulate or control the distribution, storage, use and disposal of the requested pesticide	Partner country registration status is documented under Factor A, above. XXX does/does not have
(k) The provisions made for training of users and applicators	
(l) The provisions made for monitoring the use and effectiveness of the pesticide	

## 6. FINDINGS

In consequence of the analysis above, and the referenced Fumigation PEA, warehouse food commodity phosphine fumigation for **program name** food commodities and use of the complementary contact pesticides **[insert name(s)]** is [are] recommended for approval subject to full compliance with and implementation of the Safer Use Action Plan (SUAP) that constitutes the following section. The SUAP imposes on **program name** phosphine fumigation and complementary contact pesticide use the mitigation measures established by the Fumigation PEA.

In summary, these conditions are:

- Implementation of good-housekeeping IPM Measures that are essential complements to fumigation per [Fumigation Annex T-5](#) “PHOSPHINE FUMIGATION SERVICES CONTRACT”.**
- Implementation of a Fumigation Management Plan** for each fumigation event substantively conforming to the plan provided as [Annex T-3](#) “FUMIGATION MANAGEMENT PLAN (FMP) FOR PHOSPHINE FUMIGATION OF FOOD COMMODITIES IN SHEETED STACKS” to the Fumigation PEA.<sup>5</sup>
- Complementary Use of Contact Pesticides** will (1) be limited to the pesticide(s) authorized by this PERSUAP and substantively conform to contact pesticide best practices as set out in Fumigation PEA Annex T-6 on IPM PRACTICES.<sup>6</sup>
- Storage and Transport of Aluminum Phosphide and Contact Pesticides, if under program control**, will substantively conform to contact pesticide best practices as set out in Fumigation PEA [Annex T-6](#) on PM PRACTICES, EXCEPT for changes specified below and/or subsequently approved by the USAID Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA) Bureau Environmental Officer (BEO).
- Food and feed commodities that have been fumigated with phosphine must be held and aerated for 48 hours prior to distribution.
- Monitoring and Corrective Actions.** Program will actively monitor compliance with above-listed conditions and undertake corrective actions as needed.

<sup>5</sup> EXCEPT as noted in the SUAP

<sup>6</sup> Ibid.

Formally, upon approval of this PERSUAP, the **program name** IEE is amended so that phosphine fumigation activities receive a 22 CFR 216 **negative determination** subject to the **condition** of compliance with the SUAP provided below.

## 7. SAFER USE ACTION PLAN (SUAP)

The SUAP is provided as a mandatory **“safer use action plan and compliance tracker” form**. This form both enumerates safer use requirements and sets out how program name will implement these requirements. Additionally, it serves as a compliance tracking and reporting tool, and will be submitted annually with regular reporting requirements.

*Note: with respect to fumigation, the Safer Use Action Plan form satisfies the requirement for an environmental mitigation and monitoring plan (EMMP). The program EMMP should simply incorporate the SUAP by reference.*

**[INSERT USAID PROGRAM NAME]**  
**FUMIGATION SAFER USE ACTION PLAN**

Completion of this form is an integral part of the PERSUAP and must be submitted annually with regular reporting requirements.

<b>PROGRAM &amp; CONTACT INFORMATION</b>		<b>DATE OF ANNUAL REPORTING SUBMISSION:</b>	
<b>Awardee</b>		<b>Annual Update #1</b>	
<b>Program Name</b>		<b>Annual Update #2</b>	
<b>Fumigation Compliance Lead</b>	<i>Name and title</i>	<b>Annual Update #3</b>	
<b>Contact Information</b>	<i>Email &amp; telephone</i>	<b>Annual Update #4</b>	

<b>FUMIGATION LOG (record all fumigation events since the last annual update)</b>						
Dates	Location (Town or City)	Warehouse Type			Commodity & Quantity Fumigated	Key Exceptions/Incidents per FMP log.
		P*	S*	T*		

*P=Primary, S=Secondary, T=Tertiary*

REQUIRED COMPLIANCE MEASURES	STATUS OF COMPLIANCE ACTIONS (Place an X where applicable)
1. <b>Good Housekeeping IPM Measures are implemented.</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If “No”, please explain why, and detail when compliance is expected to take place:
2. <b>A Fumigation Management Plan is implemented, with the required gas monitoring equipment, PPE and gas impermeable tarps for fumigation.</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If “No”, please explain why, and detail when compliance is expected to take place:
3. <b>The Use of Contact Pesticides is limited to pesticides authorized in this PERSUAP, and proper application, safety measures and PPE requirements are equally followed.</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If “No”, please explain why, and detail when compliance is expected to take place:
4. <b>Best practices in the storage and transport of Aluminum Phosphide and contact Pesticides are carried out.</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If “No”, please explain why, and detail when compliance is expected to take place:
5. <b>The third-party Fumigation Service Provider, if used, is in compliance with specified safer use practices</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If “No”, please explain why, and detail when

	compliance is expected to take place:
6. Compliance monitoring and implementation of corrective actions:	<input type="checkbox"/> Yes <input type="checkbox"/> No <b>If “No”, please explain why, and detail when compliance is expected to take place:</b>

**REQUESTED EXCEPTIONS AND CHANGES TO SPECIFIED MANAGEMENT PRACTICES**

Enter here specific requested exceptions or changes to fumigation practices as described in the Fumigation Management Plan ([Fumigation PEA Annex T-3](#)) or storage, transport, and contact pesticide practices per [Annex T-6](#) on IPM PRACTICES. Reference by number & provide justification in each case. Alternately, a strike-through edit of the FMP may be submitted.

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**(insert extra rows if needed)**