

## Factsheet

# PHOSPHINE FUMIGATION COMPLIANCE REQUIREMENTS FOR USAID PROJECTS

### PHOSPHINE FUMIGATION: NEED & RISKS

Fumigation with phosphine gas is a critical tool to assure protection of agricultural food commodities from waste and spoilage. It is also an intrinsically dangerous process: phosphine is deadly, flammable and corrosive.

Failure to conduct fumigation properly poses serious risks to fumigators, warehouse workers and nearby residents. It also creates a high risk that fumigation will be ineffective, posing both an immediate problem for the program *and* contributing to the significant and growing problem of phosphine resistance.

Resistance increases commodity spoilage and costs. And, by requiring longer exposure times and higher concentrations of gas, it increases health and safety risks. In the worst case, resistance could lead to the loss of phosphine fumigation as an effective tool.



### THE NEW FUMIGATION PEA

In recognition of these risks and to develop clear guidance and tools for Title II programs to control them, DCHA has undertaken a Programmatic Environmental Assessment (PEA) for Phosphine Fumigation of Title II Food Commodities under USAID's environmental procedures.

This *PEA for Commodity Protection in Title II Food Aid Programs by Phosphine Fumigation* (the "Fumigation PEA") establishes compliance requirements for all Title II Partners who undertake phosphine fumigation.

The public comment period for the PEA is now closed and the PEA is in process of finalization. Upon finalization (expected in November 2013), these requirements take effect.

### REQUIREMENTS IN BRIEF

**PERSUAP.** Under the requirements established by the PEA, each Title II Program supporting phosphine fumigation must develop and USAID must approve a fumigation Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP). A detailed template is provided.

(A PERSUAP is an amendment to a Title II program's Initial Environmental Examination (IEE) fulfilling the analysis and safeguard requirements established by 22 CFR 216.3(b) for any use of pesticides in a USAID activity.)

The PERSUAP authorizes phosphine fumigation subject to the safer use requirements established by the PEA. In summary, these requirements are:

- Implementation of specified "**good housekeeping**" **measures** to control pests as a mandatory complement to fumigation.
- Completion of a **Fumigation Management Plan** for each fumigation event & adherence to its provisions. A detailed template is provided. Key provisions include:

|  |
|--|
| <b>Efficacy monitoring.</b> Monitoring of phosphine gas concentrations under the sheeted commodity stacks. |
|--|

|  |
|--|
| <b>Hazard monitoring.</b> Monitoring of ambient concentrations of phosphine gas. |
|--|

|   |
|---|
| <b>Use of personal protective equipment</b> by fumigators INCLUDING appropriate canister respirators or self-contained breathing apparatus. |
|---|

|  |
|--|
| <b>Gas Impermeable Tarps.</b> All tarps must be impermeable, otherwise fumigation is incomplete, and promotes insect resistance. |
|--|

- Use of **fumigation services solicitations and contracts** that specify required safer practices. (Detailed templates are provided.)

|  |
|--|
| <b>Partners that use the templates provided and follow</b> |
|--|

through on implementation and reporting as specified therein will be in compliance. The “Tools Annexes” to the PEA provide compliance guidance and all tools and templates.

The PEA and all its tools and templates can be accessed at [www.usaidgems.org/fumigationpea.htm](http://www.usaidgems.org/fumigationpea.htm)



## QUESTIONS AND ANSWERS

**Q: Are efficacy and hazard monitoring, gas impermeable tarps and use of canister respirators apparatus firm requirements?**

**A:** Yes.

**Q. What if monitoring equipment and breathing apparatus are not available in-country?**

**A.** If necessary, partners can procure fumigation equipment, including monitoring equipment, breathing apparatus, and appropriate tarps. Partners should discuss this situation with their AORs.

**Q. Can the PERSUAP and Fumigation Management Plan templates provided be altered?**

**A.** The PERSUAP can be used to request changes to the Fumigation Management Plan, which sets out requirements for the fumigation process. However, exceptions must be well-justified and will likely slow the process of approval.

**Q. Are these rigorous requirements for fumigation management really necessary?**

**A.** The requirements established by the PEA are not a “gold standard” for phosphine fumigation. They are rather the set of basic, acceptable technical practices necessary for safe, successful fumigation. Note that often the same practices are necessary for BOTH safety and efficacy.

**Q. Will existing Title II programs need to develop a fumigation PERSUAP right away and otherwise immediately comply with PEA requirements?**

**A.** Existing programs are expected to comply within a reasonable period of time. It is understood that compliance presents a set of issues for programs in implementation, including those of cost, that cannot be instantly resolved. These issues can be discussed between the partner, the AOR and DCHA BEO.

**Q. Are these requirements permanent?**

**A.** The core requirements—a fumigation management plan for each event that requires hazard and efficacy monitoring, an exclusion zone, and proper breathing apparatus—are very unlikely to change. These are basic elements of effective, safe fumigation.

However, DCHA expects to adjust the templates and tools provided, and the specific guidance for implementation of these requirements based on field experience.