North Dakota Fumigation Management Plan Small to Intermediate Operation

This plan is developed to help small to intermediate operations that perform fumigation comply with fumigation regulations established by the state of North Dakota. It does not address every possible fumigation-related situation. Any relevant aspect of the operation, related to fumigation and specific to the site that this plan is designed for, must be included with these plans.

Developed for:		
Business name:Address:		
radicss.		
 City, ST, zip:		
Owner/Responsible Manager	C	Certified Applicator
Name:	N	Name:
Day phone:		Certification no
Night phone:		Exp. Date:
Cell phone:		Day phone:
-		Night phone:
Pager:		Cell phone:
Email:		Pager:
		_
Emergency Information Local Police:		(or 911)
Local Fire:		
Local ER:		, ,
Local Ambulance:		(or 911)
County Sheriff:		
County Emergency Management: _		
ND Dept. of Ag 701-328-2231 Chemtrec:	1-800-424-9300	
Poison Control:	1-000-141-3300	1-800-222-1222

FMP Checklist for Compliance

A. Preparation and Planning

- 1. Read and review relevant literature and product information:
 - Is another Fumigation Management Plan in place?
 - o No
 - o Yes, reviewed: Date _____
 - o MSDS (Material Safety Data Sheet)
 - o Product label and applicator (or product) manual
 - o Reviewed: Date _____
 - Other relevant material
 - o None
 - o Respiratory equipment instruction
 - o reviewed: Date _____
 - o Gas detection equipment instruction
 - o reviewed: Date_____
 - o SCBA equipment instruction, if applicable
 - o reviewed: Date _____
- 2. Obtain or develop a drawing of the facility layout, and attach it to this FMP document, to be used to verify measurements and to make site-specific notes as part of the FMP. If the following notations do not exist on the plan, make note of the location of:
 - Drains
 - Doors, windows, vents, pipe through-passes, and entryways that will need to be sealed
 - Doors and entryways that will need to be secured to prevent entry
 - Connections (including electrical) to adjacent areas and other buildings not scheduled for fumigation
 - Areas where new construction or remodeling have occurred since the last fumigation
 - Fans and the switches and breakers that control them
 - Location of water sources
- 3. Inspect the facility for its suitability for fumigation, and consult with previous FMPs and other records for any changes to the structure. (Examples that would **not** meet suitability criteria: wooden or other construction that can't be adequately sealed, too close to residential buildings or other inhabited areas, etc)
 - Facility suitable for fumigation
 - Air handling equipment that will be shut down during the treatment and utilized during aeration has been reviewed.
 - o Switches marked on the facility drawing, and flagged or marked for easy identification during the aeration process.
 - o Changes to structure from previous FMP
 - o No
 - o Yes, changes noted on FMP Site Drawing, Appendix 3

- 4. The person responsible for the fumigation will be:
 - o licensed in the Fumigation category through the NDSU Pesticide Program, under the North Dakota Department of Agriculture
 - o physically present during the application of the fumigant and for the initial opening of the fumigated structure.
 - o Other fumigation personnel will be trained in fumigation procedures
 - o Specialized training is documented in employees file.

Name _____

- o Certified fumigation applicator
- o Trained applicator
- o Gas detector training
- o SCBA training
- o Medically approved as per OSHA
- o Fit tested
- o Respiratory equipment training

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- 5. Personal Safety Equipment for fumigators
 - o Safety equipment is owned by this facility and has been properly maintained, and serviced according to manufacturer requirements
 - o Dry, cotton gloves
 - o Individual respirators
 - Gas detectors
 - o SCBA units
 - o Respirators, gas detectors, or SCBA units are not owned by the entity writing this FMP

0	Respirator supplier:
0	Gas Detector supplier:
\cap	SCBA supplier:

 Proper maintenance and service of borrowed/rented equipment has been verified

6.		Safety	of I	People not involved in fumigation
		0	str	the facility is attached to, adjacent to, or somehow connected or within another ructure not scheduled for fumigation, the following steps will be taken to sure there will be no unsafe exposure to fumigant: Connections will be sealed off using polyethylene sheeting, tape Gas readings will be taken at the start of each work shift in occupied adjacent and/or connected areas, and readings recorded on Appendix 3 Gas readings will be taken in adjacent and/or connected areas at intervals of
				hours while adjacent areas are occupied, and recorded on Appendix 3
			0	Continuous electronic monitoring of gas levels will be conducted by means
				of (specific device):
		Ot	o her	Supplying workers with gas-detecting devices
7.		Emerge	ency	y Response Procedures
	0	Those i	nvc	olved in this fumigation have been informed of the procedural steps listed
		•	Mo Co "D	vacuate the immediate area of the release of fumigant conitor gas concentrations and put on respiratory equipment as needed ordon off area, approximately 100 feet around the point of release, with Danger" tape and attach fumigant placards to tape eport any accident and/or incidents related to fumigant exposure to:
8.		Submi	t th	e "Official Notification of Fumigation" (see Appendix 1) to the Fire Chief
		twenty	y fo	ur hours prior to the fumigation, unless otherwise notified by the fire

department. Record the signature of the Fire Chief/Authorized Personnel on this form.

B. Fumigation Procedures1. What is the commodity to be fumigated?

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4. Sealing Procedures

- o Mark on FMP, all equipment or locations within the area to be fumigated that must be sealed off or isolated. Sophisticated electronic equipment (panel boards, computers) must be isolated from phosphine gas to prevent potential corrosion damage.
- o If the site has been fumigated before, review the previous FMP for sealing information.
 - No structural changes that affect sealing procedures have occurred as the result of construction/remodeling
 - O Structural changes (i.e. construction/remodeling) ,that affect sealing, have been noted and marked on FMP
- o Prepare the structure for the fumigation and complete the required sealing.
- 5. Placarding and Locking
 - o Placard contains the following information:
 - "Danger/Peligro"
 - Skull and crossbones
 - Date and time fumigation begins and ends
 - Fumigant product name and EPA registration
 - Name, Address, 24-hour phone number for applicator
 - o Place placards on doors, hatches, and ladders (mark with 'P' on FMP drawing)
 - Safety "boots" or "clamshells" on doors to which unauthorized personnel may have keys (mark with 'B' on FMP drawing)
 - Security guard on duty

0	Other	(desc	cribe)

7. Monitoring - <u>Safety Monitoring</u>

- o Detection equipment necessary for monitoring gas levels and clearing fumigated areas is available and calibrated, if necessary.
- o Detector tubes have not expired
- Conduct phosphine gas monitoring in areas to prevent excessive exposure and to determine where exposure may occur. Document where monitoring occurred and what the gas concentrations were (see Appendix 2).
- Monitoring for fumigant levels during fumigation documented, see form Appendix 2

Fumigant levels will be monitored using					
0					
	(identify gas dete	ection device)			
0	at intervals of	hrs			

- o Check for possible leaks near the treatment site and any other critical areas around or near the fumigation site such as areas downwind from the site.
 - None detected
 - Leak locations, and corrections, noted on drawing and in Appendix 3.

Monitoring - Efficacy Monitoring

o Take gas readings from within the fumigated structure to ensure proper gas concentrations. Record on Appendix 2.

C. Post-Application Operations

1.		Check fumigant concentration with a gas detector before re-entry						
		o Fumigant level:						
2.		Opening and Aerating Fumigated site o Aeration scheduled to begin at: i. Day						
		ii. Date iii. Time (A.M or P.M)						
		III. Tille (Till of Fixe)						
		o Documentation of gas levels during aeration recorded on Appendix 2						
3.		Deactivation of spent fumigant o Dry o Wet						
	0	Disposal of deactivated spent fumigant						
		(describe method)						
	0	Count all spent phosphine products to ensure that all fumigant used on the job has been retrieved.						
	0	Plan for additional cleanup and preparation of site for commodity release:						
		None necessaryOther						

- o Remove warning placards when aeration is complete.
- o Notify facility management that personnel, contractors or others may be allowed to reenter the aerated area.

Appendix 1:

OFFICIAL NOTICE of FUMIGATION

Elevator name		
Address:		
Pesticide being used:		
Date of application:		
Date of aeration:		
Contified Applicator in charge		
Certified Applicator in charge:	(print name)	
	(sign name)	
	,	
_	(date)	
	,	
Cell #		
Pager #		
re Chief/Authorized Official		
	(Signature)	
	(date)	
Notice to Fire Chief or Authori		
Please return this notifi (fax number)	cation via fax to the elevator at:	

Appendix 2:

PHOSPHINE FUMIGATION GAS MONITORING REPORT

Business name: _							_		
Date: _									
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	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	
	Initial:	Initial:	Initial:	Initial:	Initial:	Initial:	Initial:	Initial:	
Location:									Comments/Conditions
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	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:	
	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	
	Initial:	Initial:	 Initial	 Initial	Initial:	Initial:	 Initial	Initial:	
Location:					 Reading				Comments/Conditions
		1							
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