RESTRICTED USE PESTICIDE
DUE TO ACUTE INHALATION TOXICITY OF HIGHLY TOXIC PHOSPHINE GAS

For retail sale to Dealers and Certified Applicators only. For use by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification. Refer to the directions in this Applicator's Manual for requirements of the physical presence of a Certified Applicator.

APPLICATOR'S MANUAL FOR

KILLZ-ALL 60®

TABLETS & PELLETS

For use against insects which infest stored Commodities and Control of Burrowing Pests

ACTIVE INGREDIENT:

Aluminum Phosphide	60%
INERT INGREDIENTS	40%
Total	100%

KEEP OUT OF REACH OF CHILDREN
DANGER — POISON — PELIGRO

THE USE OF THIS PRODUCT IS STRICTLY PROHIBITED ON SINGLE AND MULTI-FAMILY RESIDENTIAL PROPERTIES AND NURSING HOMES, SCHOOLS (EXCEPT ATHLETIC FIELDS), DAYCARE FACILITIES AND HOSPITALS.

THE COMPLETE LABEL FOR THIS PRODUCT CONSISTS OF THE CONTAINER LABEL AND APPLICATOR'S MANUAL WHICH MUST ACCOMPANY THE PRODUCT. READ AND UNDERSTAND THE ENTIRE CONTAINER LABEL AND APPLICATOR'S MANUAL. A FUMIGATION MANAGEMENT PLAN MUST BE WRITTEN FOR ALL FUMIGATIONS PRIOR TO ACTUAL TREATMENT. CONSULT WITH YOUR STATE LEAD PESTICIDE REGULATORY AGENCY TO DETERMINE REGULATORY STATUS, REQUIREMENTS, AND RESTRICTIONS FOR FUMIGATION USE IN THAT STATE. CALL (1-800-527-8215) IF YOU HAVE ANY QUESTIONS OR DO NOT UNDERSTAND ANY PART OF THE LABEL.

PELIGRO AL USARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta se la haya sido explicado ampliamente.

TO THE USER: If you cannot read English, do not use this product until the label and Applicator's manual has been fully explained to you.

FIRST AID: See inside pages for FIRST AID and additional PRECAUTIONARY STATEMENTS.

KILLZ-ALL 60® TABLETS and PELLETS ARE NONCOMBUSTIBLE, BUT EXPOSURE TO MOIST AIR OR WATER RELEASES FLAMMABLE AND TOXIC PHOSPHINE GAS. SPONTANEOUS COMBUSTION MAY RESULT IF CONTACTED BY WATER, ACIDS, OR CHEMICALS.

Seller warrants that this product conforms to its commercial description and when used according to label directions under normal conditions of use, it is reasonably fit for the purposes stated on the label. To the extent consistent with applicable law, the seller makes no other warranty, either express or implied, and Buyer assumes all risk should the product be used contrary to label.

ROC ENTERPRISES LLC
1908 W. OLD 40 HWY
SALINA, KANSAS 67401
Emergency Phone # 800-424-9300 / 800-527-8215

EPA EST. NO.: 073925-CHN-001 EPA REG. NO.: Tablets 81951-1 • Pellets 81951-2

KILLZ-ALL 60® TABLETS **KILLZ-ALL 60®** PELLETS

APPLICATOR'S MANUAL FOR

KILLZ-ALL 60®

TABLETS & PELLETS

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SECTION 1
FIRST AID

FIRST AID: Symptoms of overexposure are headache, dizziness, nausea, difficult breathing, vomiting, and diarrhea. In all cases of overexposure, get medical attention immediately. Take victim to a doctor or emergency treatment facility. Have this Applicator's Manual with you when calling a poison control center or doctor, or going for treatment. Direct the emergency personnel to SECTION 1. FIRST AID

If inhaled:
- Get exposed person to fresh air. Keep warm and make sure person can breathe freely.
- If breathing has stopped, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.
- Do not give anything by mouth to an unconscious person.

If swallowed:
- Call a Poison control center or doctor immediately for treatment advice.
- Drink or administer one or two glasses of water. Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth if victim is unconscious or not alert.

If on skin or clothing:
- Brush or shake material off clothes and shoes in a well-ventilated area.
- Allow clothes to aerate in a ventilated area prior to laundering.
- Do not leave contaminated clothing in occupied and/or confined areas such as automobiles, vans, motel rooms, etc.
- Wash contaminated skin thoroughly with soap and water.

If in eyes:
- Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.
- Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye.
- Call poison control center or doctor for treatment advice.

HOT LINE NUMBER
Have the product container or label or Applicator's Manual with you when calling a poison control center or doctor, or going for treatment. For 24-hour emergency medical treatment, contact the National Pesticide Information Center 1-800-858-7378

A. Note to Physician (give this section to the attending physician)

Aluminum phosphide tablets and pellets react with moisture from the air, acids and many other liquids to release Phosphine gas. Mild exposure by inhalation causes malaise (indefinite feeling of sickness), ringing in the ears, fatigue, nausea and pressure in the chest, which is relieved by removal to fresh air. Moderate poisoning may occur within a few hours to several days resulting in pulmonary edema (fluid in lungs) and may lead to dizziness, cyanosis (blue or purple skin color), unconsciousness, and death.

In sufficient quantity, Phosphine affects the liver, kidneys, lungs, nervous system and circulatory system. Inhalation can cause lung edema (fluid in lungs) and hyperemia (excess of blood in body parts), small per vascular brain hemorrhages and brain edema (fluid in brain). Ingestion can cause lung and brain symptoms but damage to the viscera (body cavity organs) is more common. Phosphine poisoning may result in (1) pulmonary edema, (2) liver elevated serum GOT, LDH, and alkaline phosphates, reduced prothrombin, hemorrhage, and jaundice (yellow skin color) and (3) kidney hematuria (blood in urine) and anuria (abnormal or lack or urination). Pathology is characteristic of hypoxia (oxygen deficiency in body tissue). Frequent exposure to concentration above permissible levels over a period of days or weeks may cause poisoning. Treatment is symptomatic.

The following measures are suggested for use by the physician in accordance with his own judgment: In its milder form, symptoms of poisoning may take some time (up to 24 hours) to make their appearance, and the following is suggested:

1. Give complete rest for 1-2 days, during which the patient must be kept quiet and warm.

2. Should patient suffer from vomiting or increased blood sugar, appropriate solutions should be administered. Treatment with oxygen-breathing equipment is recommended, as is the administration of cardiac and circulatory stimulants.

In cases of severe poisoning (Intensive Care Unit recommended):

1. Where pulmonary edema is observed, steroid therapy should be considered and close medical supervision is recommended. Blood transfusions may be necessary.

2. In case of manifest pulmonary edema, venesection should be performed under vein pressure control. Heart glycosides (.) (in case of hemoconcentration, venesection may result in shock). On progressive edema of the lungs: immediate intubations with a constant removal of edema fluid and oxygen over-pressure respiration, as well as any measures required for shock treatment. In case of kidney failure, extra corporeal hemodialysis is necessary. There is no specific antidote known for the poisoning.

3. Mention should be made here of suicidal attempts by taking solid Aluminum phosphide by mouth. After swallowing: emptying of the stomach by vomiting, flushing of the stomach with diluted potassium permanganate solution of magnesium peroxide until flushing ceases to smell of carbide. Thereafter, apply carbomedicanalis.

SECTION 2
INTRODUCTION

KILLZ-ALL 60® tablets and pellets are used to protect stored commodities from damage by insects. In limited areas, applications of **KILLZ-ALL 60®** may be made to control burrowing vertebrate pests. The use of this product is strictly prohibited on single and multi-family residential properties and nursing homes, schools (except athletic fields), daycare facilities and hospitals. For a list of approved sites see page 27-28.

KILLZ-ALL 60® and other Aluminum Phosphide fumigants are acted upon by atmospheric moisture to produce Phosphine gas. **KILLZ-ALL 60®** tablets and pellets contain aluminum phosphide (ALP) as their active ingredient and will liberate Phosphine gas via the following chemical reaction:

$$AlP + 3H_2O \rightarrow Al(OH)_3 + PH_3$$

Phosphine gas is highly toxic to insects, burrowing pests, humans, and other forms of animal life. In addition to its toxic properties, the gas will corrode certain metals and may ignite spontaneously in air at concentrations above its lower flammable limit of 1.8% (v/v). These hazards will be described in greater detail later on in this Applicator's Manual for **KILLZ-ALL 60®** pellets and tablets.

KILLZ-ALL 60® also contains ammonium carbamate, which liberates ammonia and carbon dioxide as follows:

$$NH_2COONH_4 \rightarrow 2NH_3 + CO_2$$

These gases are essentially nonflammable and act as inerting agents to reduce fire hazards. The ammonia gas also serves as a warning agent.

KILLZ-ALL 60® is prepared in two forms: tablets and pellets. The rounded tablets weigh approximately 3 grams and release 1 gram of phosphine gas. They are about 16mm in diameter and are bulk packaged in resealable aluminum flasks containing 100 or 500 tablets each. The pellets weigh approximately 0.6 grams and release 0.2 gram of phosphine gas. They are about 6 mm in diameter and are packaged in resealable flasks containing either 1660 or 2500 pellets.

Upon exposure to air, **KILLZ-ALL 60®** pellets and tablets begin to react with atmospheric moisture to produce small quantities of phosphine gas. This reaction starts slowly, gradually accelerates and then tapers off again as the aluminum phosphide is spent. **KILLZ-ALL 60®** pellets react somewhat faster than do the tablets. The rates of decomposition of the tablets and pellets will vary depending upon moisture and temperature conditions. For example, when moisture and temperature of the fumigated commodity are high and decomposition of **KILLZ-ALL 60®** tablets, pellets may be complete in less than 3 days.

However, at lower ambient temperatures and relative humidity levels, decomposition of **KILLZ-ALL 60**® may require 5 days or more. After decomposition, **KILLZ-ALL 60**® leaves a gray-white powder composed almost entirely of aluminum hydroxide and other inert ingredients. This will cause no problems if the fumigant has been added directly to commodities such as grain or bulk animal feed. However, the spent powder must usually be retrieved for disposal after space fumigations. If properly exposed, the spent **KILLZ-ALL 60**® will normally contain only a small amount of unreacted aluminum phosphide and may be disposed of without hazard. While not considered a hazardous waste, partially spent residual powder from incompletely exposed **KILLZ-ALL 60**® will require special care. Precautions and instructions for further deactivation and disposal will be given later in this Manual. Section 24 Disposal Instructions pg. 30-31

KILLZ-ALL 60® pellets and tablets are supplied in gas-tight containers and their shelf life is unlimited as long as the packaging remains intact. Once opened for fumigation, the flasks of tablets and pellets may be tightly resealed and stored for future use. Storage and handling instructions will be given in detail later in this Applicator's Manual. Section 19 Storage Instructions pg. 17

SECTION 3.
PRECAUTIONARY STATEMENTS

A. Hazards to Humans and Domestic Animals

DANGER - POISON: Aluminum Phosphide from **KILLZ-ALL 60**® tablets and pellets may be fatal if swallowed. Do not get in eyes, on skin or on clothing. Do not eat, drink or smoke while handling aluminum phosphide fumigants. If sealed container is opened, or if the material comes in contact with moisture, water or acids, these products will release phosphine which is an extremely toxic gas. If a garlic odor is detected, refer to the Industrial Hygiene Monitoring Section 15 F on page 15 of the Applicator's Manual for appropriate monitoring procedures. Pure phosphine gas is odorless; the garlic odor is due to a contaminant. Since the odor of phosphine may not be detected under some circumstances, the absence of a garlic odor does not mean that dangerous levels of phosphine gas are absent. Observe proper re-entry procedures specified elsewhere in the labeling to prevent overexposure.

B. ENVIRONMENTAL HAZARDS

This product is highly toxic to fish and wildlife. Non-target organisms exposed to phosphine gas will be killed. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal wastes.

C. Physical and Chemical Hazards

Aluminum phosphide in tablets, pellets and partially spent dust will release phosphine if exposed to moisture from the air or if it comes into contact with water, acids and many other liquids. Since phosphine may ignite spontaneously at levels above its lower flammable limit of 1.8-% v/v (18,000 ppm), it is important not to exceed this concentration. Ignition of high concentrations of phosphine can produce a very energetic reaction. Explosion can occur under these conditions and may cause severe personal injury. **Never allow the buildup of phosphine to exceed explosive concentrations.** Do not confine spent or partially spent aluminum phosphide fumigants as the slow release of phosphine from this material may result in formation of an explosive atmosphere. Aluminum phosphide tablets and pellets, outside their containers, should not be stacked or piled up or contacted with liquid water. This may cause a temperature increase, accelerate the rate of gas production and confine the gas so that ignition could occur. It is preferable to open containers of aluminum phosphide products in open air as under certain conditions, they may flash upon opening. Containers may also be opened near a fan or other appropriate ventilation that will rapidly exhaust contaminated air. When opening, invert the container several times then point the container away from the face and body and slowly loosen the cap. Although the chances for a flash are very remote, never open these containers in a flammable atmosphere. These precautions will also reduce the fumigator's exposure to phosphine gas. If containers are opened inside the structure to be fumigated, air monitoring must be conducted to ensure worker's exposure to phosphine gas does not exceed the allowable limit of 8-hour Time Weighted Average (TWA) of 0.3 ppm or the 15-minute Short-Term Exposure Limit (STEL) of 1.0 ppm phosphine.

Pure phosphine gas is practically insoluble in water, fats and oils, and is stable at normal fumigation temperatures. However, it may react with certain metals and cause corrosion, especially at higher temperatures and relative humidities. Metals such as copper, brass and other copper alloys, and precious metals such as gold and silver are susceptible to corrosion by phosphine. Thus, small electric motors, smoke detectors, brass sprinkler heads, batteries and battery chargers, fork lifts, temperature monitoring systems, switching gears, communication devices, computers, calculators and other electrical equipment should by protected or removed before fumigation. Phosphine gas will also react with certain metallic salts and, therefore, sensitive items such as photographic film, some inorganic pigments, etc., should not be exposed. Immediately after addition of phosphine to the structure, turn off any lights and unessential electrical equipment.

SECTION 4
DIRECTIONS FOR USE

A. General

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Read and follow the complete label which contains instructions for the safe use of this product. Additional copies are available from: ROC Enterprises LLC • 1908 W. Old 40 Hwy • Salina, Kansas 67401

1. **KILLZ-ALL 60®** tablets and pellets are Restricted Use Pesticides due to the acute inhalation toxicity of phosphine (Phosphine PH3) gas. Read and follow the complete label for the safe use of this pesticide.

2. **KILLZ-ALL 60®** is a highly hazardous material and may only be used by certified applicators or persons under their direction supervision. Before using, read and follow the label restrictions, precautions and directions for use. Additional copies of this Manual are available from **ROC Enterprises, LLC 1908 W. OLD 40 HWY SALINA, KS 67401**

3. Prior to fumigation, review the MSDS, complete label, and any other safety information with appropriate company employees. On an annual basis, or more frequently if required by the Fumigation Management Plan, provide and review with local emergency planning committee officials (as defined by EPCRA section 301©) the MSDS, Applicator's Manual, and other relevant safety information, if available, for use in the event of an emergency.

SECTION 5
PESTS CONTROLLED

KILLZ-ALL 60® has been found effective against the following vertebrate pests, adult insects and their pre-adult states – that is eggs, larvae, and pupae:

Almond moth	European grain moth	Mediterranean flour moth	cigarette beetle
Angoumois grain moth	Flat grain beetle	Pink bollworm	Hessian fly
Bean weevil	Fruit flies	Raisin moth	pea weevil
Bees	Granary weevil	Red flour beetle	woodchucks
Cadelle	Greater wax moth	Rice weevil	yellowbelly marmots
Cereal leaf beetle	Hairy fungus beetle	Rusty grain weevil	chipmunks
Confused flour beetle	Indian meal moth	Saw-toothed grain beetle	Norway Rats
Dermestid beetles	Khapra beetle	Spider beetles	roof rats
Dried fruit beetle	Lesser grain borer	Tobacco moth	mice
Dried fruit moth	Maize weevil	Yellow meal worm	ground squirrels
moles	Voles	pocket gophers	

Africanized bees & honey bees infested with/tracheal mites
Prairie dogs (except Utah prarie dogs, Cynomys Parvidens)

Although it is possible to achieve total control of the listed burrowing and insect pests, this is frequently not realized in actual practice. Factors contributing to less than 100% control are leaks, poor gas distribution, unfavorable exposure conditions, etc. In addition, some insects are less susceptible to phosphine than others. If maximum control is to be attained, extreme care must be taken in sealing, the higher dosages must be used, exposure periods must be lengthened, proper application procedures followed, and temperature and humidity must be favorable.

SECTION 6
Commodities Which May be Fumigated with KILLZ-ALL 60®

KILLZ-ALL 60® may be used for the fumigation of listed raw agricultural commodities, animal feed and feed ingredients, processed foods, tobacco and certain other non-food items.

A. Raw Agricultural Commodities, Animal Feed and Feed Ingredients

KILLZ-ALL 60® tablets and pellets may be added directly to animal feed, feed ingredients and raw agricultural commodities stored in bulk. For these commodities not stored in bulk, **KILLZ-ALL 60®** may be placed in moisture permeable envelopes, on trays, in bags, or other dust retaining devices, and fumigated as with processed foods.

Raw Agricultural Commodities and Animal Feed and Feed Ingredients Which May be Fumigated with KILLZ-ALL 60®

Almonds
Animal Feed & feed ingredients
Barley
Brazil Nuts
Cashews
Cocoa Beans
Coffee Beans
Corn
Cottonseed
Dates
Rice
Filberts
Flower Seed
Grass Seed
Millet
Oats
Peanuts
Pecans
Pistachio Nuts
Popcorn
Wheat
Rye
Safflower Seed
Seed & Pod Vegetables
Sesame Seeds
Sorghum
Soybeans
Sunflower Seeds
Triticale
Vegetable Seed
Walnuts

B. Processed Foods

The listed processed foods may be fumigated with **KILLZ-ALL 60®**. Under no condition shall any processed food or bagged commodity come in contact with **KILLZ-ALL 60®** tablets and pellets or residual dust except that **KILLZ-ALL 60®** may be added directly to processed brewer's rice, malt and corn grits for use in the manufacture of beer.

Processed Foods Which May be Fumigated with KILLZ-ALL 60®

- Processed candy and sugar
- Cereal flours and bakery mixes
- Cereal foods (including cookies, crackers, macaroni, noodles, pasta, pretzels, snack foods and spaghetti)
- Processed cereals (including milled fractions and packaged cereals)
- Cheese and cheese by-products
- Chocolate & chocolate products (assorted chocolate, chocolate liquor, cocoa, cocoa powder, dark chocolate coating and milk chocolate)
- Processed coffee
- Corn grits
- Cured, dried and processed meat products and dried fish
- Dates and figs

- Dried eggs and egg yolk solids
- Dried milk, dried powdered milk, non-dairy creamers, and nonfat dried milk
- Dried or dehydrated fruits (apples, dates, figs, peaches, pears, prunes, raisins and sultanas)
- Processed herbs, spices, seasonings and condiments
- Malt
- Processed nuts (almond, apricot kernels, Brazil nuts, cashews, filberts, peanuts, pecans, pistachio nuts, and walnuts)
- Processed oats (including oatmeal)
- Rice (brewers rice, grits, enriched and polished wild rice)
- Processed tea
- Dried and dehydrated vegetables (beans, carrots, lentils, peas, potato products and spinach)
- Yeast (including primary yeast)
- Soybean flour and Milled fractions
- Wild rice
- Other processed foods

C. Nonfood commodities, including Tobacco
The listed nonfood items may be fumigated with **KILLZ-ALL 60®**. Tobacco and certain other of the nonfood commodities should not be contacted by tablets, pellets, or residual dust.

D. Nonfood commodities which may be fumigated with KILLZ-ALL 60®
- Processed or unprocessed cotton, wool and other natural fibers of cloth, clothing
- Straw and hay
- Feathers
- Human hair, rubberized hair, vulcanized hair, mohair
- Leather products, animal hides and furs
- Tobacco
- Wood, cut trees, wood chips and wood and bamboo products
- Paper and paper products
- Dried plants and flowers
- Seeds, (grass seed, ornamental herbaceous plant seed and vegetable seed)
- Tires (for mosquito control)
- Other Nonfood commodities

Section 7
Exposure Conditions

The following conditions may be used as a guide in determining the minimum length of the exposure period at the indicated temperatures:

Minimum Exposure Periods of KILLZ-ALL 60®

Temperature	Pellets	Tablets
Below 40°F(5°C)	Do not fumigate	Do not fumigate
40°-53°F(5-12°C)	8 days (192 hours)	10 days (240 hours)
54°-59°F (12-15°C)	4 days (96 hours)	5 days (120 hours)
60°-68°F (16-20°C)	3 days (72 hours)	4 days (96 hours)
Above 68°F (20°C)	2 days (48 hours)	3 days (72 hours)

The length of the fumigation must be great enough so as to provide for adequate control of the insect pests, which infest the commodity being treated. Additionally, the fumigation period should be long enough to allow for more or less complete reaction of **KILLZ-ALL 60®** with moisture so that little or no un-reacted aluminum phosphide remains. This will minimize exposures during further storage and/or processing of the treated bulk commodity as well as reduce hazards in the disposal of partially spent aluminum phosphide products remaining after space fumigations. The proper length of the fumigation period will vary with exposure conditions, since insects are more difficult to control at lower temperatures and the rate of phosphine gas production by **KILLZ-ALL 60®** is less at lower temperatures and humidity.

It should be noted that there is little to be gained by extending the exposure period if the structure to be fumigated has not been carefully sealed or if the distribution of gas is poor and insects are not subjected to lethal concentrations of phosphine. Careful sealing is required to ensure that adequate gas levels are retained and proper application procedures must be followed to provide satisfactory distribution of phosphine gas. Some structures can only be treated when completely tarped, while others cannot be properly sealed by any means and should not be fumigated. Exposure times must be lengthened to allow for penetration of gas throughout the commodity when fumigant is not uniformly added to the mass, for example, by surface application or shallow probing. This is particularly important in the fumigation of bulk commodity contained in large storage.

Remember, exposure periods in the table are minimum periods and may not be adequate to control all stored products pests under all conditions nor will they always provide for total reaction of **KILLZ-ALL 60®**, particularly if temperatures and commodity moisture levels or humidity are low during the fumigation.

SECTION 8
Maximum Dosage Rates for Fumigations with KILLZ-ALL 60®

Phosphine is a mobile gas that will penetrate to all parts of the storage structure. Therefore, dosage must be based upon the total volume of the space being treated and not on the amount of commodity it contains. The same amount of **KILLZ-ALL 60®** is required to treat a 30,000-bushel silo whether it is empty or full of grain unless, of course, the surface of the commodity is sealed off by a tarpaulin. The following dosages are the maximum dosages allowed for bulk and space fumigations.

Maximum Allowable Dosage Rates for Fumigations with KILLZ-ALL 60®

Product	Per 1000 cu. ft.*	Per 1000 bu.*
Pellets	725	900
Tablets	145	180

*NOTE: Maximum Dosage for dates, nuts & dried fruits is 200 pellets, 40 tablets per 1000 cu. ft. and 250 pellets, 50 tablets per 1000 bushel.

*NOTE: Maximum Dosage for Commodity in small containers 1-2 pellets per 10 cu. ft., Maximum Dosage for Rodent burrows 10-20 / pellets per burrow, 2-4 / tablets per burrow.

The above maximum dosages are not to be exceeded. It is important to be aware that a shortened exposure period cannot be fully compensated for with an increased dosage of phosphine.

Somewhat higher dosages, not to exceed the maximum dosages, are usually used under cooler, drier conditions or where exposure periods are relatively short.

However, the major factor in selection of dosage is the ability of the structure to hold phosphine gas during the fumigation. A good illustration of this point is comparison of the low dosages required to treat modern, well-sealed warehouses with the higher range used for poorly constructed buildings that cannot be sealed

adequately. In certain other fumigations, proper distribution of lethal concentrations of gas to reach all parts of the structure becomes a very important factor in dose selection. An example where they may occur is in the treatment of grain stored in tall silos. Poor gas distribution frequently results when the fumigant cannot be uniformly added to the grain and it must be treated by surface application.

NOTE: Five (5) **KILLZ-ALL 60®** pellets or 1 **KILLZ-ALL 60®** tablet will produce a concentration of 25 parts per million (ppm) of phosphine gas (PH3) in 1000 cubic feet of space.

Advisory: Although it is permissible to use the maximum dosages listed above, the following advisory dosages are for the various types of fumigation.

KILLZ-ALL 60® Dosages for Various Types of Fumigation

Types of Fumigation	Pellets	Tablets
Vertical Storages (such as silos, concrete bins, steel bins, etc.)	200-900/1000 bu. 150-700/1000 cu. ft.	40-180/1000 bu. 30-140/1000 cu. ft.
Farm Bins (Butler Type)	450-900/1000 bu. 350-725/1000 cu. ft.	90-180/1000 bu. 70-145/1000 cu. ft.
Bulk stored commodities in flat storage, bunkers and commodities stored on ground loosely piled under gas tight covering.	450-900/1000 bu. 350-725/1000 cu. ft.	90-180/1000 bu. 70-145/1000 cu. ft.
Packaged commodities (bagged grain, process foods, etc.) in sealable enclosures.	150-450/1000 cu. ft.	30-90/1000 cu.ft.
Nuts, dates or dried fruit in storage boxes.	100-200/1000 cu. ft.	20-40/1000 cu. ft.
Railcars, containers, trucks vans and other transport vehicles.	225-500/1000 cu. ft.	45-145/1000 cu. ft.
Space fumigation such as cereal mills, feed mills, food processing plants & warehouses	100-300/1000 cu. ft.	20-60/1000 cu. ft.
Stored Tobacco	100-250/1000 cu. ft.	20-50/1000 cu. ft.
Non-food products	150-450/1000 cu. ft.	30-90/1000 cu. ft.
Stored beehives, supers and other beekeeping equipment for wax moth control and Africanized honeybees with tracheal mites and foulbrood.	150-225/1000 cu. ft.	30-45/1000 cu. ft
Barges	300-900/1000 bu. 250-725/1000 cu. ft.	60-80/1000 bu. 50-145/1000 cu. ft.
Shipholds	200-400/1000 bu. 150-330/1000 cu. ft.	40-80/1000 bu. 30-66/1000 cu. ft.

Higher dosages are used in structures that are of loose construction and in the fumigation of bulk stored commodities in which diffusion will be slowed and result in poor distribution of phosphine gas.

SECTION 9
PROTECTIVE CLOTHING

Wear dry gloves of cotton or other material if contact with **KILLZ-ALL 60®** tablets and pellets are likely. Gloves must remain dry during use. Wash hands thoroughly after handling aluminum phosphide products. Aerate used gloves and other contaminated clothing in a well-ventilated area prior to laundering.

SECTION 10
RESPIRATORY PROTECTION

A. When Respiratory Protection Must Be Worn

Respiratory protection is required when concentration levels of phosphine are unknown.

B. Permissible Gas Concentration Ranges for Respiratory Protection Devices

A NIOSH/MSHA approved full-faced gas mask - phosphine canister combination may be used at levels up to 15 ppm or following manufacturers use condition instructions for escape. Above 15 ppm or in situations where the phosphine concentration is unknown, a NIOSH/MSHA approved, SCBA must be worn. The NIOSH/OSHA Pocket Guide DHHS (NIOSH) 97-140 or the NIOSH ALERT - Preventing Phosphine Poisoning and Explosions During Fumigation, lists these and other types of approved respirators and the concentration limits at which they may be used.

C. Requirements for Availability of Respiratory Protection

If **KILLZ-ALL 60®** is to be applied from within the structure to be fumigated, an approved full-face gas mask- phosphine canister combination or SCBA or its equivalent must be available at the site of application in case it is needed. Respiratory protection must also be available for applications from outside the area to be fumigated such as addition of tablets or pellets to automatic dispensing devices, outdoor applications, etc.

SECTION 11
REQUIREMENTS FOR CERTIFIED APPLICATOR TO BE PRESENT AND RESPONSIBLE FOR ALL WORKERS AS FOLLOWS

- ❑ A certified applicator must be physically present, responsible for, and maintain visual and/or voice contact with all fumigation workers during the application of the fumigant, and also during the opening of the product containers. Once the application is complete and the structure has been made secure, the certified applicator does not need to be physically present at the site.

- ❑ A certified applicator must be physically present, responsible for and maintain visual and/or voice contact with all fumigation workers during the initial opening of the fumigation structure for aeration. Once the aeration process is secured and monitoring has established that aeration can be completed safely, the certified applicator does not need to be physically present and trained person(s) can complete the process and remove placards.

- ❑ Persons with documented training in the handling of phosphine products must be responsible for receiving, aerating and removal of placards from vehicles which have been fumigated in transit.

SECTION 12
TRAINING FOR RECEIPT OF INTRANSIT VEHICLES UNDER FUMIGATION

The trained person (s) must be trained by a Certified Applicator following the EPA accepted product applicator's manual that must precede or be attached to the outside of a transport vehicle; or by other training which is accepted by local and/or state authorities. When training has been completed and the employee demonstrates safety knowledge proficiency, the training date must be logged and maintained in the employee's safety training record for a minimum of three years. Refresher training must be done on an annual basis.

- This training must cover the following items found in this manual:

- How to aerate the vehicle and verify that it contains no more than 0.3-ppm Phosphine.

OR

- How to transfer the commodity to another storage area without prior aeration and ensure that worker safety limits are not being exceeded in the work zone during aeration.

- How to determine when respiratory protection must be worn.

- How to protect workers and nearby persons from exposure to levels above the 8-hour TWA of 0.3 ppm or the 15 minute TWA short-term exposure limit (STEL) of 1.0 ppm Phosphine.

- Proper removal of placards from the vehicle.

- How to follow proper residual disposal instruction.

SECTION 13
GAS DETECTION EQUIPMENT

There are a number of devices on the market for the measurement of Phosphine gas at both industrial hygiene and fumigation levels. Glass detection tubes used in conjunction with the appropriate hand-operated air sampling pumps are widely used. These devices are portable, simple to use, do not require extensive training and are relatively rapid, inexpensive and accurate. Electronic devices are also available for both low level and high Phosphine gas readings. Such devices should be used in full compliance with manufacturers' recommendations.

SECTION 14
NOTIFICATION REQUIREMENTS

A. Authorities and on-site workers

As required by local regulations, notify the appropriate local officials (fire department, police department, etc.) of the impending fumigation. Provide to the officials an MSDS and complete label for the product and any other technical information deemed useful. Offer to review this information with the local official(s).

B. INCIDENTS INVOLVING THE PRODUCT

ALL INCIDENTS MUST BE REPORTED AS PER REQUIREMENTS OF OSHA CFR 29. REGISTRANT MUST BE INFORMED OF ANY INCIDENT INVOLVING THE USE OF THIS PRODUCT. PLEASE REPORT AS SOON AS POSSIBLE TO **ROC Enterprises, LLC AT: PHONE 800-527-8215, FAX 785-820-9896 ROC Enterprises, LLC 1908 W. Old Hwy 40 Salina, KS 67401.**

C. THEFT OF THE PRODUCT

Report all thefts of product immediately to proper local officials.

SECTION 15
APPLICATOR AND WORKER EXPOSURE

A. Phosphine Exposure Limits

Exposure to phosphine may not exceed 0.3 ppm measured as an eight-hour time-weighted average (TWA), or the 15 minute TWA short-term exposure limit (STEL) of 1.0 ppm Phosphine. All persons in the treated site and in adjacent indoor areas are covered by these exposure standards.

B. Application of Fumigant

At least two persons, a certified applicator and trained person, or two trained persons under the direct supervision of the certified applicator must be present when entry into the structure for application of the fumigant is required. Depending upon temperature and humidity, the tablets and pellets release phosphine gas slowly upon exposure to moisture from the air. In most cases, this release is slow enough to permit applicators to deposit fumigant in the desired areas and then vacate the premises without significant exposure to the gas. Monitoring must be conducted in order to characterize the application and determine the fumigator's exposure. See Section 10 for respiratory protection requirements.

C. Leakage from Fumigated Sites

Phosphine is highly mobile and given enough time may penetrate seemingly gas tight materials such as concrete and cinder blocks. Therefore, adjacent, enclosed areas likely to be occupied should be examined to ensure that significant leakage has not occurred. Sealing of the fumigated site and/or airflow into the occupied areas must be sufficient to meet exposure standards.

D. Aeration and Reentry

If an area is to be entered after fumigation, it must be aerated until the level of gas is at or below the permissible levels. The area or site must be monitored to ensure that liberation of gas from the treated commodity does not result in the development of unacceptable levels of phosphine. Do not allow re-entry into treated areas by any person before the level of phosphine reaches 0.3 ppm or below unless protected by an approved respirator.

E. Handling Unaerated Commodities

Transfer of incompletely aerated commodity via bulk handling equipment such as augers, drag conveyors and conveyor belt to a new storage structure is permissible. A Certified Applicator is responsible for training workers who handle the transfer of incompletely aerated listed commodities, and appropriate measures must be taken (i.e., ventilation or respiratory protection) to prevent exposures from exceeding the exposure limits for phosphine. The new storage structure must be placarded if it contains more than 0.3 ppm phosphine. If the fumigation structure must be entered to complete the transfer, at least two trained persons, wearing proper respiratory protection, may enter the structure. A certified applicator must be physically present during the entry into the structure. REMEMBER transporting containers or vehicles under fumigation over public roads is prohibited.

F. Industrial Hygiene Monitoring

Phosphine exposures must be documented in an operations log or manual at each fumigation area and operation where exposures my occur. Monitor airborne phosphine concentrations in all indoor areas to which fumigators and other workers have had access during fumigation and aeration. Perform such monitoring in workers' breathing zones. This monitoring is mandatory and is performed to determine when and where respiratory protection is required. Once exposures have been adequately characterized, spot checks must be made, especially if conditions change significantly or if an unexpected garlic odor is detected or a change in phosphine level is suspected.

There are a number of devices on the market for measurement of phosphine gas levels for industrial hygiene purposes. These devices are reliable, portable, simple to use, do not require extensive training, and provide relatively rapid, inexpensive, and accurate low-level industrial hygiene monitoring. Contact ROC Enterprises, LLC for what might be best for you. Information on phosphine (Phosphine PH3) detector tubes may be obtained from ROC Enterprises, LLC 800-527-8215

G. Engineering Controls

If monitoring shows that workers may be exposed to concentrations in excess of the permitted limits, then engineering controls (such as forced air ventilation) and/or appropriate work practices must be used to reduce exposure to within permitted limits. Appropriate respiratory protection must be worn if phosphine exposure limits are exceeded or concentrations are unknown.

SECTION 16
PLACARDING OF FUMIGATED AREAS

All entrances to the fumigated area must be placarded including areas containing rodent burrows being fumigated. Placards must be made of substantial material that can be expected to withstand adverse weather conditions, and must bear the wording as follows:

1. The signal word DANGER/PELIGRO and the SKULL AND CROSSBONES symbols in red.

2. The statement: "Structure and/or commodity under fumigation, DO NOT ENTER/NO ENTRE."

3. The statement, "This sign may only be removed by a certified applicator or a person with documented training after the structure and/or commodity is completely aerated (contains 0.3 ppm or less of phosphine gas)".

   If incompletely aerated commodity is transferred to a new storage structure, the new structure must also be placarded if it contains more than 0.3 ppm. Workers exposure during this transfer must not exceed allowable limits.

4. The date the fumigation begins.

5. Name and EPA Registration number of fumigant used.

6. Name, address and telephone number of the fumigation company and/or applicator.

7. A 24-hour emergency response telephone number.

All entrances to a fumigated area must be placarded. Where possible, place placards in advance of the fumigation to keep unauthorized persons away. For railroad hopper cars, placards must be placed on both sides of the car near the ladders and next to the top hatches into which the fumigant is introduced.

Do not remove placards until the treated commodity or area is aerated down to 0.3 ppm hydrogen phosphide or less. To determine whether aeration is complete, each fumigated structure or transport vehicle must be monitored and shown to contain 0.3 ppm or less phosphine gas in the air space around and, if feasible, in the mass of the commodity.

SECTION 17
SEALING OF STRUCTURE

The site to be fumigated must first be inspected to determine if it can be made sufficiently gas tight. Careful sealing is required so that adequate gas levels are retained. Turn off all ventilation; supply air, air conditioning, and any other air moving systems, which could negatively affect the fumigation. Thoroughly inspect the structure to be fumigated and seal cracks, holes and openings. These areas could include, but are not limited to windows, doors, vents, chimneys and structural flaws. Sealing techniques can vary, but most often include polyethylene sheeting, adhesive tapes and adhesive sprays. Expandable foam or caulking material can work well on structural flaws. Proper sealing will insure sufficient gas levels within the fumigated area and will decrease the chance of unwanted exposures outside of the fumigated area.

As with all fumigations, it is required that sealing be inspected for leaks. If phosphine above 0.3 ppm is found in an area where exposure to workers or bystanders may occur, the fumigator, using proper respiratory protective equipment (see Section 10 for respiratory protection requirements) must attempt to seal the leak from the exterior of the structure. Failing this, the fumigators, following proper procedures, may enter the structure and seal the leaks from the interior. If the concentration inside the structure has decreased below the target level as a result of the leakage, additional fumigant may be added following the sealing repairs.

DO NOT FUMIGATE A STRUCTURE THAT CANNOT BE SEALED SUFFICIENTLY GAS TIGHT.

SECTION 18
AERATION OF FUMIGATED COMMODITIES

A. Foods and Feeds
Tolerances for phosphine residues have been established at 0.1 ppm for animal feeds and 0.01 ppm for finished foods. To guarantee compliance with these tolerances, it is necessary to aerate these commodities for 48 hours prior to offering to the end use consumer

B. Tobacco
Tobacco must be aerated for at least three days (72 hours) when fumigated in hogshead and for at least two days (48 hours) when fumigated in other containers. Tobacco fumigated in containers with plastic liners will probably require longer aeration periods to reach 0.3 ppm.

C. Non-food commodities
Aerate all non-food commodities to 0.3 ppm or less of Phosphine. Monitor densely packed commodities to ensure that aeration is complete.

SECTION 19
STORAGE INSTRUCTIONS

Store **KILLZ-ALL 60®** under lock and key, in a dry, well-ventilated area away from heat. Post as pesticide storage area. Do not contaminate water, food or feed by storing pesticides in the same areas used to store these commodities.

REPORT ALL THEFTS OF PRODUCT IMMEDIATELY TO PROPER LOCAL OFFICIALS.

Do not store in buildings where humans or domestic animals reside. Keep out of reach of children. **KILLZ-ALL 60**® tablets and pellets are supplied in gas tight, resealable aluminum flasks. Do not expose the product to atmospheric moisture any longer than is necessary and seal tightly before returning opened flasks to storage.

The shelf life of **KILLZ-ALL 60**® is virtually unlimited as long as the containers are tightly sealed.

SECTION 20
PROPER POSTING OF STORAGE

The posting of the storage area should take into account the needs of a variety of organizations. These should include, but not be limited to corporate policy, insurance carrier, Occupational Safety and Health Administration (OSHA), Right to Know and local emergency response professionals. At a minimum, the storage must be marked with the following signs:

1. Danger, Poison (with skull and cross bones)
2. Authorized Personnel Only
3. Pesticide Storage NFPA Hazard Identification Symbols

The National Fire Protection Association (NFPA) has developed Hazard Identification Symbols. This standardized system is designed to provide, at a glance the information regarding the health, fire and reactivity hazards associated with hazardous materials.

The following are the hazard categories and degree of hazard for aluminum phosphide:

Category	Degree of Hazard
Health	4 (Severe Hazard)
Flammability	4 (Severe Hazard)
Reactivity	2 (Moderate)
Special Notice Key	₩

NOTE: When using the NFPA Hazard Identification System, the characteristics of all hazardous materials stored in a particular area must be considered. The local fire protection district should be consulted for guidance on the selection and placement of such signs.

SECTION 21
TRANSPORTATION INSTRUCTIONS

The United States Department of Transportation (DOT) classifies aluminum phosphide as Dangerous When Wet material and it must be transported in accordance with DOT regulations.

TRANSPORT DESIGNATIONS - The following transport designations apply to aluminum phosphide:

Proper Shipping Name:	Aluminum phosphide
Hazard Class:	4.3
Identification No.:	UN 1397
Packing Group:	PG I
Shipping Label:	Dangerous When Wet/Poison
Shipping Placard:	Dangerous When Wet

Transportation Special Permit:
ROC Enterprises. – Special Permit: DOT-XXX (insert permit number)
Purpose and Limitation: "…The motor vehicles used under the terms of this special permit are not required to be placarded…"
Modes of Transportation Authorized: Motor vehicle (Only private motor vehicles used in pest control operations are authorized to transport the packages covered by the terms of this special permit.)

NOTE: You must have a copy of this special permit with you during transportation.
For a copy of this special permit contact:
ROC ENTERPRISES LLC
1908 W. Old 40 Highway • Salina, KS 67401
Tel: 800-527-8215

Section 22
REQUIRED WRITTEN FUMIGATION MANAGEMENT PLAN

The certified applicator is responsible for working with the owners and/or responsible employees of the structure and/or area to be fumigated to develop and follow a Fumigation Management Plan (FMP). State, county and local authorities may also have specific requirements. The FMP must be written PRIOR TO EVERY treatment including fumigation treatment for burrowing pests. The FMP must address characterization of the structure and/or area, and include appropriate monitoring and notification requirements, consistent with, but not limited to, the following:

1. The use of this product is strictly prohibited on single and multi-family residential properties and nursing homes, schools (except athletic fields), daycare facilities and hospitals. for a list of approved sites, see page 27-28.
2. Inspect the site to determine its suitability for fumigation.
3. When sealing is required, consult previous records for any changes to the structure, seal leaks, and monitor any occupied adjacent building to ensure safety.
4. Prior to each fumigation, review any existing FMP, MSDS, Applicators Manual and other relevant safety procedures with company officials and appropriate employees.
5. Consult company officials in the development of procedures and appropriate safety measures for nearby workers that will be in and around the area during application and aeration.
6. Consult with company officials to develop an appropriate monitoring plan that will confirm that nearby workers and bystanders are not exposed to levels above the allowed limits during application/aeration. This plan must also demonstrate that nearby residents will not be exposed to concentrations above the allowable limits.
7. Consult with company officials to develop procedures for local authorities to notify nearby residents in the event of an emergency.
8. Confirm the placement of placards to secure entrance into any area under fumigation.
9. Confirm the required safety equipment is in the place and the necessary manpower is available to complete a safe effective fumigation.
10. Written notification must be provided to the receiver of a vehicle that is fumigated in-transit.

A. Steps For Preparation of the Required Written Fumigation Management Plan

This checklist is intended to help you develop the required FMP. It is meant to be somewhat prescriptive, yet it may not apply to all fumigations and the experience and expertise of the fumigator to make changes based on circumstances, which may exist in the field. If the type of fumigation that you are to perform is not listed in this Guide for a Fumigation Management Plan you will want to construct a similar set of procedures. If you have any questions regarding changes please contact **ROC Enterprises, LLC 800-527-8215**, the EPA, State or local officials for further guidance on insuring a safe, effective and compliant fumigation.

This checklist is intended to provide help with developing the required FMP. It emphasizes safety steps to protect people and property. The guide is general and cannot be expected to apply to all types of situations. Any questions please contact **ROC Enterprises, LLC at the above number**.

The FMP and related documentation, including monitoring records, must be maintained for a minimum of 2 years.

CHECKLIST GUIDE FOR A FUMIGATION MANAGEMENT PLAN

FIRST READ, FOLLOW AND UNDERSTAND FULLY THE COMPLETE LABEL IF YOU HAVE QUESTIONS CONTACT **ROC ENTERPRISES, LLC at 800-527-8215.**

1. DETERMINE PURPOSE OF FUMIGATION
   a. Elimination of Insect(s) Infestation
   b. Elimination of Rodent(s) Infestation
   c. Plant Pest Quarantine
2. IDENTIFY COMMODITY TO BE FUMIGATED
   a. Verify Commodity is listed in the Applicator's Manual
   b. Note the condition of the commodity
3. IDENTIFY THE TARGET PEST(S)
   a. Insect and identify
   b. Rodent and identify
   c. Verify Target Pest(s) are listed in the Applicator's Manual
4. INDENTIFY TYPE OF SITE TO BE FUMIGATED
   a. Space Fumigation
      Tarp, Mill, Warehouse, Food Plant
   b. Stationary Vehicle Fumigation
      Truck, Van, Container, Railcar
   c. Bulk Commodity Fumigation
      Vertical Storage's, Tanks, Flat Storage's, Farm Bins, Bunkers & Tarped Ground Storage's
   d. Intransit Fumigations
      Railcars, Containers when shipped Piggy back on rail or on Vessels, Barges, Vessels (Shipholds), and Tankers
   e. Check to see if your site is listed in the Applicator's Manual.
   f. Make sure the site can be sufficiently sealed gas tight to ensure an ethical fumigation
   g. A drawing of the site is recommended to ensure where a fumigation is taking place (This is not necessary for in-transit Fumigations, but complete inspection of the suitability of the in-transit site must be done to ensure a safe fumigation. Notes should be kept on: Identification numbers, vessel names, and other pertinent information, also any sealing that was necessary to perform & safety equipment availability).
5. DETERMINE BEST METHOD OF FUMIGATION FOR THE SITE TO BE FUMIGATED
   a. Direct Application or Dust Retained
      1. Surface Application
      2. Probe Application
      3. Recirculation
      4. If you have questions? Consult with ROC Enterprises for suggestions.
6. DETERMINE BEST FORM OF ALUMINUM PHOSPHIDE FOR THE FUMIGATION
   a. Pellets, Tablets or Dust Retained or Direct Application
   b. Verify which form may be used, depending on the commodity to be fumigated and the exposure time available. This information is in the Applicator's Manual.
7. DETERMINE DOSAGE
   a. Figure the cubic feet of the site, you can also use the amount of bushel but if the site is not full or the surface of the commodity is not tarped then you will not have a sufficient amount of fumigant for the size of the site.
      1. Factors that will also effect dosage rates are level of infestation, temperature (do not fumigate when the commodity temperature is below 40 degrees F - 5 degrees C), moisture content of the commodity as well as the atmosphere and exposure time allowable and necessary for an effective fumigation. Refer to the Applicator's manual for allowable dose rates.

8. DETERMINE FUMIGATION PERSONNEL
    a. Confirm in writing that all personnel in and around the structure and/or area to be fumigated have been notified prior to application of the fumigant. Consider using a checklist that each employee initials indicating they have been notified.
    b. Instruct all fumigation personnel to read the Applicator's Manual. Fumigation personnel must be trained in the proper method of application, the hazards that may be encountered, and the selection of personal protection devices including detection equipment.
    c. Confirm that all personnel are aware of and know how to proceed in case of an emergency situation.
    d. Instruct all personnel on how to report any accident and/or incidents related to fumigant exposure. Provide a telephone number for emergency response reporting
    e. Instruct all personnel to report to proper authorities any theft of fumigant and/or equipment related to fumigation.
    f. Establish a meeting area for all personnel in case of emergency.
9. SAFETY EQUIPMENT REQUIREMENTS
    a. NIOSH/MSHA approved respiratory protection with an approved canister for Phosphine. Make sure your canisters are in date and that you have enough for the required personnel. Make sure your personnel have been properly trained in their use.
    b. A Phosphine monitoring device with the capabilities of reading the set exposure standards either manually or electronically. Follow manufactures recommendations on the use of these devices.
10. MONITORING REQUIREMENTS
    a. Monitoring should be made with a Phosphine detection device in workers' breathing zones.
    b. Monitoring Phosphine conditions must be conducted to ensure that the 8-hour TWA of 0.3ppm or the 15 minute TWA short-term exposure limit (STEL) of 1.0 ppm Phosphine are not exceeded.
    a. Document where monitoring will occur.
    b. Maintain a log of Monitoring Records with date and time of each reading and the level of the reading.
    c. Once exposures have been adequately characterized, subsequent monitoring is not routinely required, however spot checks should be made occasionally.
    d. Monitoring must be conducted during aeration and corrective action taken if gas levels exceed the allowed limits in an area where workers or bystanders may be exposed.
    e. Monitoring inside the structure can also be done if it can be done safely. This information will let you know if you reach the proper ppm for an effective fumigation. This monitoring should be done by remote sampling methods.
    f. FMPs and related documentation, including monitoring records must be maintained for a minimum of two years by a certified applicator.
11. NOTIFICATION REQUIREMENTS
    a. Prior to application, review the MSDS, complete label, and any other safety information with the person(s) in charge of the site and make sure that authorized personnel in and around the site to be fumigated have been notified. It is a good idea to have the person(s) in charge of the site sign off on this step.
    b. Inform the person(s) in charge of the site as well as local authorities of how long the fumigation will be going on.
    c. Prior to application notify authorities in compliance with state and local laws and in compliance with the Applicator's Manual.
    d. When working with the person(s) in charge of the site as well as local authorities prepare an Emergency Response Plan with procedures as well as all emergency phone numbers. Keep this available for all personnel to access.
    e. Confirm that the receiver of in-transit vehicles under fumigation have been notified and are trained according to Section 12 of this applicator manual.

12. SEALING REQUIREMENTS AND EQUIPMENT
    a. Spray glue, Duct Tape, Poly sheeting 4-mil (is recommended), Spray foam and Caulking all may be use to make the site more gas tight. Always make sure you have enough before you start.
    b. Sealing must be done so as not to exceed the set exposure limits for workers or bystanders for Phosphine.
    c. Wherever large amounts of sealing materials are used such as on aeration fans, man ways, hatches, and doors etc., warning placards must be posted and monitored if in worker areas.
    d. After application is complete it is a good idea to go back and check where sealing was required and check it periodically.
13. APPLICATION PROCEDURES
    a. Plan carefully and apply all fumigants in accordance with the registrants label requirements.
    b. When entering into the area under fumigation always work with two or more people under the direct supervision of a certified applicator wearing appropriate respirators.
    c. Apply fumigant from the outside where appropriate.
    d. Provide watchmen when deemed necessary.
    e. When entering structures always follow OSHA rules for confined spaces.
    f. Document that the receiver, of in-transit vehicles under fumigation, has been notified.
    g. Turn off any electric lights in the fumigated area of the structure as well as all non-essential electrical motors.
    h. If you have any questions contact ROC Enterprises, LLC
14. POST-APPLICATION OPERATIONS
    a. Provide watchmen when deemed necessary.
    b. Ventilate and aerate in accordance with structural limitations.
    c. Run ventilating or aerating fans where appropriate.
    d. Use a Phosphine gas detector before re-entry to determine fumigant concentration.
    e. Keep written records of monitoring to document completion of aeration.
    f. Consider temperature when aerating.
    g. Ensure that aeration is complete before moving vehicle into public roads.
    h. Remove warning placards when aeration is complete.
    i. Inform person(s) in charge of site when aeration is complete.
    j. If you have any questions contact ROC Enterprises, LLC
    k. Inform business/client that employees/other persons may return to work or otherwise be allowed to re-enter the aerated structure.
15. EFFICACY
    a. For stationary structures, phosphine readings MUST be taken from within the fumigated structure to insure proper gas concentrations. If the phosphine concentrations have fallen below the targeted level the fumigators, following proper entry procedures may re-enter the structure and add additional product.
    b. All phosphine concentration readings must be documented.

Section 23
Application Procedures

A FMP must be written PRIOR to all applications. A FMP must be devised to cover application and exposure period, aeration and disposal of the fumigant so as to keep to a minimum any human exposure to phosphine and to help assure adequate control of the insect pests.

A. General Statement

Regardless of the type of storage to be treated, there are several important factors common to all application procedures. A number of these points have been covered in other sections of the Applicator's Manual but are listed again in the following for completeness.

a. **KILLZ-ALL 60®** tablets and pellets must be applied in accordance with the allowable application rates listed on this label. When tablets and/or pellets are not applied uniformly to a bulk commodity (surface application in a tall silo or ship's hold for example), exposure times should be lengthened to allow for penetration of gas throughout the storage.

b. Do not us product if structure cannot be adequately sealed.

c. Refer to section 7 for Exposure Conditions.

d. Piling of large numbers of tablets or pellets, whether applied to a bulk commodity or for space fumigation may prevent complete breakdown of the product by limiting its access to moist air. This can result in decreased efficacy as a result of poor gas release and may leave an active residual for disposal, which contains considerable amounts of un-reacted aluminum phosphide. Piling of product may also result in increase hazard of fire if water should come into contact with the mass of aluminum phosphide.

e. Do not contact liquid water when applying **KILLZ-ALL 60®**.

f. Do not apply aluminum phosphide fumigant in confined spaces where the concentration of phosphine may build up to exceed its lower flammable limit.

g. Observe all restrictions and precautions.

Refer to Section 8 for allowable application rates.

B. Fumigations of Farm Bins
A FMP must be written prior to all applications.

Leakage is the single most important cause of failures in the treatment of farm storages. Since these storages are often small, they usually have a higher leakage area in proportion to their capacity. Most wooden storage structures are so porous that they cannot be successfully fumigated unless they are completely tarped. Do not fumigate storages, which will be entered by humans or animals prior to aeration. Do not fumigate areas which house sensitive equipment containing copper or other metals likely to be corroded by phosphine gas.

Seal the bin as tightly as possible. It is recommended that the surface of the grain be covered with Poly (4mil or its equivalent is recommended) after **KILLZ-ALL 60®** has been applied. Tarping the grain surface will greatly reduce the leak rate of the gas as well as reduce the amount of **KILLZ-ALL 60®** required. Only the volume below the tarp must be dosed. If not tarped, the entire volume of the storage must be treated, whether full or empty.

KILLZ-ALL 60® tablets and pellets may be scattered over the surface or probed into the grain using a rigid PVC pipe about 5 to 7 feet in length and having a diameter of 1-1/4 inches. Use about 20-50 tablets or 100-250 pellets. Immediately cover the surface of the grain with a plastic tarpaulin. Place no more than 25 percent of the total dose at the bottom if the bin is equipped with aeration fans. Caution: Make sure that the aeration duct is dry before adding
KILLZ-ALL 60®. Addition of **KILLZ-ALL 60®** to water in an aeration duct may result in a fire. Seal the aeration fan with 4-mil plastic sheeting. If entering the bin please refer to Section 10 Respiratory Protection page 12 and Section 13 Gas Detection Equipment page 13.

Post fumigation warning signs on entrances to the bin and near the ladder.

Following aeration of the bin, an approved protectant may be applied to the surface of the grain to discourage re-infestation.

C. Fumigation of Flat Storage's
A FMP must be written prior to all applications.

a. Treatment of these types of storages may require considerable effort; therefore, sufficient manpower should be available to complete the work rapidly enough to prevent excessive exposure to phosphine gas. Vent flasks outside the storage, conduct Fumigations during the cooler periods and employ other work practices to minimize exposures. Refer to Section 10, page 12 Respiratory Protection

b. Seal any vents, cracks and other sources of leaks.

c. Apply tablets and pellets by surface application, shallow probing, deep probing or uniform addition as the bin is filled. Storage requiring more than 24 hours to fill should not be treated by addition of fumigant to the commodity stream as large quantities of phosphine may escape before the bin is completely sealed.

Probes should be inserted vertically at intervals along the length and width of the flat storage. Pellets and/or tablets may be dropped into the probe at intervals as it is withdrawn.

Surface application may be used if the bin can be sufficiently gas tight to contain the fumigant gas long enough for it to penetrate the commodity. In this instance, it is advisable to place about 25 percent of the dosages in the floor level aeration ducts. Check the ducts prior to addition of **KILLZ-ALL 60**® to make sure that they contain no liquid water.

d. Tarping the surface of the commodity is often advisable, particularly if the overhead of the storage cannot be well sealed.

e. Lock all entrances to the storage and post fumigation warning placards. See Section 16 for placarding requirements.

D. Fumigation of Vertical Storage's (concrete upright bins and other silos in which grain can be rapidly transferred).
A FMP must be written prior to all applications.

a. Close all openings and seal all cracks to make the structure as airtight as possible. Prior to the fumigation, seal the vents near the bin top which connects to adjacent bins.

b. Pellets or tablets may be applied continuously by hand or by an automatic dispenser on the head house/gallery belt or into the fill opening as the commodity is loaded into the bin. An automatic dispenser may not be used to add **KILLZ-ALL 60**® into the commodity stream in the leg of the elevator. It is recommended to do all applications of **KILLZ-ALL 60**® directly into the fill opening.

c. Seal the bin deck openings after the fumigation has been completed.

d. Bins requiring more than 24 hours to fill should not be fumigated by continued addition into the commodity stream. These bins must be fumigated by probing surface application, or other appropriate means. Exposure periods should be lengthened to allow for diffusion of gas to all parts of the bins in which **KILLZ-ALL 60**® has not been applied uniformly throughout the commodity mass.

e. Place warning placards on the discharge gate and on all entrances. See Section 16 for placarding requirements.

E. Fumigation of Mills, Food Processing Plants and Warehouses
A FMP must be written prior to all applications.

a. Using the information presented above in this manual, calculate the length of the fumigation and dosage of tablets or pellets to be applied based upon volume of the building, air and/or commodity temperature and the general tightness of the structure.

b. Carefully seal and placard the space to be fumigated. See Section 16 for placarding requirements.

c. Place trays or sheets of Kraft paper or foil, up to 12 sq. ft (1.1 sq. M) in area, on the floor throughout the structure to hold **KILLZ-ALL 60**® pellets or tablets should be spread evenly over the floor. Use total floor space.

d. Do not exceed allowable maximum application rate as specified in Section 8 of the label.

e. All Doors leading to the fumigated space should be closed, sealed, locked and placarded with warning signs.

f. The fumigation period usually lasts from 2 to 5 days, depending upon the temperature. Upon completion of the exposure period, windows, doors, vents, etc., should be opened and the fumigated structure allowed to aerate for at least two hours before entering. When required, gas concentration readings may be taken using low level detector tubes or similar devices to ensure safety of personnel who re-enter the treated area. Refer to the Section 15, page 14 on Applicator and Worker Exposure.

g. Collect the spent or residual dust and dispose of it, with or without further deactivation, following the recommendations given under Disposal Instructions.

h. Remove fumigation warning placards from the aerated structure. See Section 16 for placarding requirements.

F. Fumigation of Railcars, Containers, Trucks, Vans and other Transport Vehicles.
A FMP must be written prior to all applications.

Railcars, containers, trucks, vans, and other transport vehicles shipped piggyback by rail may be fumigated intransit. However, the aeration of railcars, railroad boxcars, containers and other vehicles is prohibited enroute. It is not legal to move trucks, trailers, containers, vans, etc., over public roads or highways until they have been aerated. Transport vehicles loaded with bulk commodities, to which **KILLZ-ALL 60**® tablets or pellets may be added directly, are treated in essentially the same way as any other flat storage facility. **KILLZ-ALL 60**® may be added as the vehicle is being filled. The dose may be scattered over the surface after loading has been completed or the tablets or pellets may be probed below the surface. Carefully seal any vents, cracks or other leaks, particularly if the fumigation is to be carried out in-transit. See Section 16 of this Applicator's Manual for placarding requirements. The shipper and/or the fumigator must provide written notification to the receiver of railcars, railroad boxcars, shipping containers and other vehicles which have been fumigated in-transit. A copy of the Applicator's Manual must precede or accompany all transportation containers or vehicles which are fumigated intransit. If the Applicator's Manual is sent with the transport vehicle it must be placed securely on the outside of the vehicle. Proper handling of treated railcars at their destination is the responsibility of the consignee. Upon receipt of the railcar, railroad boxcars, shipping containers and other vehicles a certified applicator and/or persons with documented authorized training must supervise the aeration process and removal of the placards. Do not use **KILLZ-ALL 60**® tablet or pellet in cars or other personal vehicles.

G. Tarpaulin and Bunker Fumigations
A FMP must be written prior to all applications.

Use of plastic sheeting or tarpaulins to cover commodities is one of the easiest means for providing relatively gas-tight enclosures which are very well suited for fumigation. Poly tarps are penetrated only very slowly by phosphine gas, and tight coverings are readily formed from the sheets. The volume of these enclosures

may vary widely from a few cubic feet, for example, a fumigation tarpaulin placed over a small stack of bagged commodity, to a plastic bunker storage capable of holding 600,000 bushels of grain or more.

Covering bulk or packaged commodity with Poly sheeting may form an enclosure suitable for fumigation. The sheets may be Tarped together to provide a sufficient width of material to ensure that adequate sealing is obtained. If the flooring upon which the commodity rests is of wood or other porous material, it should be repositioned onto Poly prior to covering for fumigation. The plastic covering of the pile may be sealed to the floor using sand or water snakes, by shoveling soil or sand onto the ends of the plastic covering or by other suitable procedures. The Poly covering should be reinforced by tape or other means around any sharp corners or edges in the stack so as to reduce the risk of tearing. Thinner Poly, about 2 mil, is suitable for most indoor tarp Fumigations and for sealing of windows, doors and other openings in structures. However, 4 mil Poly or thicker is more suitable for outdoor applications where wind or other mechanical stresses are likely to be encountered.

Tablets or pellets may be applied to the tarped stack or bunker storage of bulk commodity through slits in the Poly covering. Probing or other means of dosing may be used. Avoid application of large amounts of **KILLZ-ALL 60**® at any one point. **The KILLZ-ALL 60**® should be added below the surface of the commodity if condensation or other source of moisture is likely to form beneath the Poly. The slits in the covering should be carefully taped to prevent loss of gas once the dose has been applied. **KILLZ-ALL 60**® dust retained is recommended for the treatment of bagged commodities and processed foods although tablets and pellets on trays or sheets of Kraft paper may be used. Care should be taken to see that the Poly is not allowed to cover the **KILLZ-ALL 60**® and prevent contact with moist air or confined gas. Do not exceed allowable maximum application rates as specified in section 8.

Distribution of phosphine gas is generally not a problem in the treatment of bagged commodities and processed foods. However, fumigation of larger bunker storage's containing bulk commodity will require proper application procedures to obtain adequate results.

Place warning placards at conspicuous locations on the enclosure.

See section 16 for additional placarding requirements.

H. Fumigation of Ships
A FMP must be written prior to all applications.

General Information
1. IMPORTANT – shipboard, in-transit ship or ship hold fumigation is also governed by U.S. Coast Guard Regulation 46 CFR 147A, Interim Regulations for Shipboard Fumigation. Refer to this regulation prior to fumigation. For further information contact: Commandant U.S. Coast Guard, Hazardous Materials Standards Division GMSO-3, Washington DC, 20593-0001.

Pre-Voyage Fumigation Procedures

1. Prior to fumigating a vessel for in-transit cargo fumigation, the master of the vessel, or his representative, and the fumigator must determine whether the vessel is suitably designed and configured so as to allow for safe occupancy of the ship's crew throughout the duration of the fumigation. If it is determined that the design and configuration of the vessel does not allow safe occupancy by the ships crew throughout the duration of the fumigation, then the vessel will not be fumigated unless all crew members are removed from the vessel. The crewmembers will not be allowed to reoccupy the vessel until the vessel has been properly aerated and the master of the vessel and the fumigator has made a determination that the vessel is safe for occupancy.

2. The person responsible for the fumigation must notify the master of the vessel, or his representative, of the requirements relating to personal protection equipment*, detection equipment, and that a person

qualified in the use of this equipment must accompany the vessel with cargo under fumigation. Emergency procedures, cargo ventilation, periodic monitoring and inspections, and first air measures must be discussed with and understood by the master of the vessel or his representative.
*Personal Protection equipment means a NIOSH/MSHA approved respirator or gas mask fitted with an approved canister for Phosphine. The canister must be approved for use up to 15 ppm, SCBA or its equivalent must be used above 15 ppm or at unknown concentrations.

3. Seal all openings to the cargo hold or tank and lock or otherwise secure all openings, manways, etc., which might be used to enter the hold. The overspace pressure relief system of each tank aboard tankers must be sealed by closing the appropriate valves and sealing the openings into the overspace with gas-tight materials.

4. Placard all entrances to the treated spaces with fumigation warning signs.

5. If the fumigation is not completed and the vessel aerated before the manned vessel leaves port, the person in charge of the vessel shall ensure that at least two units of personal protection equipment and one gas or vapor detection device, and a person qualified in their operation be on board the vessel during the voyage.

6. During the fumigation or until a manned vessel leaves port or the cargo aerated, the person in charge of the fumigation shall ensure that a qualified person using gas or vapor detection equipment tests spaces adjacent to spaces containing fumigated cargo and all regularly occupied spaces for fumigant leakage. If leakage of the fumigant is detected, the person in charge of the fumigation shall take action to correct the leakage, or shall inform the master of the vessel or his representative of the leakage so that corrective action can be taken.

7. Review with the master of the vessel or his representative, the precautions and procedures for during the voyage.

Application Procedures for Bulk Dry Cargo Vessels and Tankers
1. Apply tablets or pellets or dust retainers by scattering uniformly over the commodity surface. Alternatively, tablets, or pellets may be deep- or shallow-probed into the commodity mass.

2. Immediately after application of the fumigant, close and secure all hatch covers, tank tops, butterworth valves, manways, etc.

In-Transit Fumigation of Containers Aboard Ships
In-transit Fumigations of containers on ships is also governed by DOT RSPA 49 CFR 176.76(i) Transport Vehicles, Freight Containers, and Portable Tanks Containing Hazardous Materials and International Maritime Dangerous Goods Code P9025-1 Amdt. 27-94. Application procedures for fumigation of raw commodities or processed foods in containers and other transport vehicles are described in Section 6 COMMODITIES WHICH MAY BE FUMIGATED WITH **KILLZ-ALL 60**®, pages 6-7.

Precautions and Procedures During Voyage
1. Using appropriate gas detection equipment, monitor spaces adjacent to areas containing fumigated cargo and all regularly occupied areas for fumigant leakage. If leakage is detected, the area should be evacuated of all personnel, ventilated, and action taken to correct the leakage before allowing the area to be occupied.

2. Do not enter fumigated areas except under emergency conditions. If necessary to enter a fumigated area, appropriate personal protection equipment must be used. Never enter fumigated areas alone. At least one other person, wearing personal protection equipment should be available to assist in case of an emergency.

Precautions and Procedures During Discharge
1. If necessary to enter holds prior to discharge, test spaces directly above grain surface for fumigant concentration, using appropriate gas detection and personal safety equipment. Do not allow entry to fumigant areas without personal safety equipment, unless fumigant concentrations are at safe levels, as indicated by a suitable detector. At least one other person, wearing PPE should be available to assist in case of emergency.

I. Fumigation of Barges
A FMP must be written prior to all applications.
Barge Fumigations are also regulation by U.S. Coast Guard regulation 46 CFR 147A as modified by U.S. Coast Guard Special Permit 2-75. This permit, which must be obtained prior to the fumigation, is available from: **U.S. Coast Guard, Hazardous Materials Standards Division, GMSO-3, Washington, DC 20593-0001** Leaks are a common cause of failures in the treatment of commodities aboard barges. Carefully inspect all hatch covers prior to application of **KILLZ-ALL 60®** and seal, if necessary. Notify consignee if the barge is to be fumigated in-transit.

J. Fumigations in Small Sealable Enclosures
A FMP must be written prior to all applications.
Excellent results may be attained in the treatment of small enclosures since it is often possible to control the fumigation and also to make the enclosure virtually gas tight. Do not exceed maximum allowable application rate. See section 8. A single pellet will treat a space from 1.4 to 10 cubic feet. From 6.9 to 50 cubic feet may be fumigated with a single **KILLZ-ALL 60®** tablet.

K. Treatment of Beehives, Supers and other Bee Keeping Equipment
A FMP must be written prior to all applications.
KILLZ-ALL 60® tablets or pellets may be used for the control of the greater wax moth in stored beehives, supers and other bee keeping equipment and for the destruction of bees, Africanized bees, and diseased bees including those infested with tracheal mites and foulbrood. The allowable application rate for this use is 30-45 tablets, 150-225 pellets. Do not exceed maximum allowable application rate. See section 8. Fumigations may be performed in chambers at atmospheric pressure, under tarpaulins, etc. by placing tablets or pellets on trays or in moisture permeable envelopes. Do not add more than 2 tablets or 10 pellets to each envelope. After aeration honey from treated hives or supers may only be used for bee food.

L. Burrowing Pest Control
A FMP must be written prior to all applications.
The use of this product is strictly prohibited on single and multi-family residential properties and nursing homes, schools (except athletic fields), daycare facilities and hospitals. A Fumigation Management Plan must be written for all burrowing pests fumigations.

1. Use Restrictions: This product must not be applied into a burrow system that is within 100 feet of a building that is, or may be, occupied by humans, and/or domestic animals. This product must be applied to underground burrow systems located in non-crop areas, crop areas, or orchards occupied by woodchucks, yellowbelly marmots (rockchucks), prairie dogs (except Utah prairie dogs, Cynomys Parvidens), Norway rats, roof rats, mice, ground squirrels, moles, voles, pocket gophers and chipmunks. All treatments for control of these species in burrows must be made outdoors. Pellets or tablets must be applied directly to underground burrow systems. Before using **KILLZ-ALL 60®** tablets or pellets for burrowing pest control, read the applicable restrictions under Environmental Hazards, Endangered Species and Special Local Restrictions below. This product must be used out-of-doors only for control of burrowing pests and for use ONLY on agricultural areas, orchards, non-crop areas (such as pasture and rangeland), golf courses, athletic fields, airports, cemeteries, rights-of-way, earthen dams, parks and recreational areas and other non-residential institutional or industrial sites.

When this product is used in athletic fields or parks, the applicator shall post a sign at entrances to the treated site containing the signal word DANGER/PELIGRO skull and crossbones, the words: DO NOT ENTER/NO ENTRE, FIELD NOT FOR USE, the name and EPA registration number of the fumigant, and a 24-hour emergency response number.

Placards may be removed 2 days after the final treatment. When this product is used out-of-doors to a site other than an athletic field or park, the applicator shall post a sign at the application site containing the signal word DANGER/PELIGRO skull and crossbones, the name and EPA registration number of the fumigant, and a 24-hour emergency response number. Signs may be removed 2 days after the final treatment. Document any burrow that open under or into occupied buildings, and do not apply to these burrows. In addition, check for any other source through which the gas may enter into occupied buildings as a result of application to burrows. If there is any way gas can move through pipes, conduits, etc. from burrows, do not treat these burrows. Prior to treating a rodent burrow, the applicator must provide the customer with a copy of the Fumigation Management Plan.

2. Application Directions for Control of Burrowing Pests

For use by a certified applicator or person under their direct supervision and who have been trained specifically for use of this product in burrowing pest control. Use application procedures appropriate to the type of burrow system being treated. DOSAGE RATES MUST NOT BE EXCEEDED UNDER ANY CIRCUMSTANCES.

For species with open burrow systems: locate all entrances to each burrow system. Treatment of more than one entrance in a system is often desirable as systems often overlap and are not defined. Treat all entrances except for those entrances you are sure connect to already treated entrances. Insert 2 to 4 tablets or 10 to 20 pellets into each entrance to be treated. Use the lower rates for smaller burrows and/or when soil moisture is high. Use higher rates for larger burrow systems and when soil moisture is relatively low. Pack the treated entrance with crumpled paper and shovel soil to completely cover the paper. Using crumpled paper will prevent soil from covering the tablets or pellets and slowing down their action. Rocks, clods of soil, cardboard, etc. may also be used for this purpose. Be sure to seal all untreated entrances by shoveling and packing soil and/or sod to completely seal the opening. Inspect treated areas 1 or 2 days following treatment for signs of residual activity of target species. Treat all reopened burrows in the same manner prescribed above.

THIS PRODUCT MUST NOT BE APPLIED INTO A BURROW SYSTEM THAT IS WITHIN 100 FEET OF A BUILDING THAT IS, OR MAY BE, OCCUPIED BY HUMANS, AND/OR DOMESTIC ANIMALS.

For species with closed burrow systems: (pocket gophers and moles in some situations). Locate the main underground runway by probing with a smooth-sided rod 12 to 18 inches from a fresh mound. For pocket gophers, begin probing on the flat side of the mound. A sudden reduction in soil resistance to the probe indicates that the main runway has been located. Once the main runway is located, remove the probe and apply 2 to 4 tablets or 10 to 20 pellets through the probe hole. Adjust treatment rate according to the level of soil moisture, using more pellets or tablets if the soil is relatively dry. Do not treat if soil is extremely dry or if there are no signs of recent gopher or mole activity. Make a tight seal to close probe hole by using a clod of soil or a sod plug to cover the hole or by using the heel of your shoe to push sod and/or soil over the surface opening. If the probe hole is more than one inch in diameter, place crumpled paper in the hole before closing it with soil and/or sod. Two days after treatment, you may check area for residual pest activity by poking holes in main runways of burrow system, flagging holes and inspecting them two days later. You should retreat all reclosed systems, on both sides of the plug.

THIS PRODUCT MUST NOT BE APPLIED INTO A BURROW SYSTEM THAT IS WITHIN 100 FEET OF A BUILDING THAT IS, OR MAY BE, OCCUPIED BY HUMANS, AND/OR DOMESTIC ANIMALS.

M. Endangered Species Considerations

The use of **KILLZ-ALL 60**© in a manner that may kill or otherwise harm an endangered or threatened species or adversely modify their habitat is a violation of Federal laws. The use of this product is controlled to prevent death or harm to endangered or threatened species that occur in the following counties or elsewhere in their range. Before using this pesticide on range and/or pastureland you must obtain the PESTICIDE USE BULLETIN FOR PROTECTION OF ENDANGERED SPECIES for the county in which the product is to be used. The bulletin is available from your County Extension Agent, State Fish and Game Office, or your pesticide dealer. Use of this product in a manner inconsistent with the PESTICIDE USE BULLETIN FOR PROTECTION OF ENDANGERED SPECIES is a violation of Federal laws. Even if applicable county bulletins do not prohibit the use of this product at the intended site of application, you may not use this product for control of prairie dogs in the states of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah or Wyoming unless a pre-control survey has been conducted.

Contact the nearest U. S. Fish and Wildlife Service Endangered Species Specialist to determine survey requirements in your area. This survey must be in compliance with the Black-Footed Ferret Survey Guidelines, developed by the U.S. Fish and Wildlife Service, and a determination must be made in accordance with the Guidelines that black-footed ferrets are not present in the treatment area.

CALIFORNIA: (all endangered species)
Fresno, Inyo, Kern, Kings, Madera, Merced, Monterey, San Benito, San Luis Obispo, Santa Barbara, Stanislaus and Tulare See the U.S. EPA Interim Measurers Bulletin for your county. To obtain a copy of the bulletin, contact your county agricultural commissioner or visit the following website: http://www.cdpr.ca.gov/docs/es/index.htm If there is no current bulletin available for your county, contact the U.S. Fish and Wildlife Service office in Portland, OR, to determine whether there are endangered species that might be adversely affected by your proposed use of (trade name) and the steps you should take to mitigate any such risks.
FLORIDA: Statewide
GEORGIA: Appling, Atkinson, Bacon, Baker, Ben Hill, Bleckley, Berrien, Brantley, Brooks, Bryan, Bullock, Calhoun, Camden, Chandler, Charlton, Chatham, Clinch, Coffee, Colquitt, Cook, Crisp, Decatur, Dodge, Dooly, Dougherty, Early, Echols, Effingham, Emanuel, Evans, Glynn, Grady, Irwin, Jeff Davis, Jenkins, Johnson, Lanier, Laurens, Lee, Liberty, Long, Lowndes, Macon, McCintosh, Miller, Mitchell, Montgomery, Pierce, Pulaski, Screven, Seminole, Telfair, Tattnall, Thomas, Tift, Toombs, Treutlen, Turner, Ware, Wayne, Wheeler, Wilcox and Worth.
NEW MEXICO: Hidalgo
UTAH: Beaver, Garfield, Iron, Kane, Piute, Sevier, Washington and Wayne
WYOMING: Albany
Use of this product in the areas listed below are prohibited without first contacting and obtaining permission from the Endangered Species Specialist at the nearest regional offices of the U.S. Fish and Wildlife Services (FWS).

Areas Inhabited by Endangered or Threatened Species

1. Black-footed Ferret – States of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah and Wyoming

2. Blunt-nosed Leopard Lizard – Counties of Kern, Kings, Fresno, Madera, Merced and Tulare in the State of California

3. Desert Tortoise – Washington County in the State of Utah

4. Eastern Indigo Snake – States of Florida and Georgia

5. San Joaquin Kit Fox – Counties of Kern, Kings, Fresno, Merced, Monterey, San Benito, San Luis Obispo, Santa Barbara, Tulare and Ventura in the State of California

5. Special Local Restrictions

1. **North Carolina: KILLZ-ALL 60®** tablets or pellets may only be used for control of rats and mice in the State of North Carolina. Use against other burrowing pests is not permitted.

2. **Oklahoma:** A special permit for black-tailed prairie dog control by poisoning is required in Oklahoma. Contact the Oklahoma State Department of Wildlife Conservation to obtain this permit.

3. **Wisconsin:** A state permit is required for use of pesticides in Wisconsin to control small mammals, except rats or mice. Please contact your local Department of Natural Resources office for information.

4. **Indiana:** Use of **KILLZ-ALL 60®** tablets or pellets for mole control is not legal in the State of Indiana

5. **Missouri:** A state permit is required for use of pesticide in Missouri to control small mammals, except rats and mice. Please contact the Missouri Department of conservation office for information.

6. **Kansas:** A special permit for black-tailed prairie dog control by poisoning is required in Kansas. Contact the Kansas Fish and Game Commission to obtain this permit.

7. **California:** Use of **KILLZ-ALL 60®** tablets or pellets for chipmunk control is not legal in the State of California.

Section 24
DISPOSAL INSTRUCTIONS

Partially spent or unreacted **KILLZ-ALL 60®** is acutely hazardous. Improper disposal of excess pesticide is a violation of Federal Law. If these wastes cannot be disposed of according to the applicator manual instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Some local and state waste disposal regulations may vary from these general recommendations. Disposal procedures should be reviewed with appropriate authorities to ensure compliance with local regulations. Contact your state Pesticide or Environmental Control Agency or Hazardous Waste Specialist at the nearest EPA Regional Office for guidance.

If properly exposed during the fumigation period, **KILLZ-ALL 60®** will contain virtually no unreacted aluminum phosphide. This will be a non-hazardous waste. The spent residual dust may be collected and/or loaded directly into open vehicles for transportation to a sanitary landfill or other approved site. Partially spent or unreacted residual dust **MUST** be further deactivated before disposal at a landfill.

Confinement of partially spent or unreacted **KILLZ-ALL 60®**, as in a closed container or plastic bag, may result in a fire hazard. Small amounts of phosphine gas may be given off from unreacted aluminum phosphide and confinement of the gas may result in a flash.

Do not transport partially spent or unreacted **KILLZ-ALL 60®** over public roads.

CONTAINER DISPOSAL:

The flasks are non-refillable containers. Do not reuse or refill. Offer for recycling, if available. Triple rinse flasks and stoppers with water if they have been contacted by aluminum phosphide dust. Then offer flasks for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Rinsate may be disposed of in a sanitary landfill, by pouring it out onto the ground or by other approved procedures. It is permissible to remove stoppers and expose empty flasks to atmospheric conditions until residue is reacted. Then puncture and dispose of in a sanitary landfill or other approved site, or by other procedures approved by state and local authorities.

Directions for Deactivation of Partially Spent or Unreacted KILLZ-ALL 60®

Any of the following conditions: low humidity, cool temperatures, shortened exposure periods, or in cases where fumigant is added back during the fumigation; may result in partially spent material.

Partially spent **KILLZ-ALL 60®**, or unreacted product resulting from a spill or leak, must be further deactivated prior to disposal.

When deactivating partially spent or unreacted product using the dry or wet methods below, the deactivation area must be outdoors, secured and posted so as to keep unauthorized people away.

WET DEACTIVATION

1. Deactivating solution is prepared by adding the appropriate amount of low-sudsing detergent or surfactant agent to water in a drum or other suitable container. A 2% solution of detergent is suggested. Fill a drum or other container to be used for wet deactivation with the deactivating solution to within an inch or two of the top. Do not allow a large headspace

above the surface of the solution.

Aluminum phosphide will react very vigorously with liquid water. Test a small amount of residue prior to proceeding with large scale wet deactivation.

2. In a well-ventilated area, outdoors, pour residual dust into the deactivating solution and stir to thoroughly wet all of the particles. Use no less than 10 gallons of deactivating solution for each case of material used.

3. Dispose of the deactivated dust-water suspension, with or without preliminary decanting, at a sanitary landfill or other suitable site approved by local authorities. Where permissible, the slurry may be poured out onto the ground. If the slurry has been held for 36 hours or more, it may be poured into a storm sewer.

4. Caution: Wear a NIOSH/MSHA approved full-face gas mask-hydrogen phosphide canister combination if exposed to levels between 0.3 ppm to 15 ppm or a Self-Contained Breathing Apparatus (SCBA) if exposure is unknown or above 15 ppm during wet deactivation of partially spent material. Do not cover the container at any time. Do not dispose of dust in a toilet. Do not allow quantities of dry residual dust from **KILLZ-ALL 60®** to be collected or stored without deactivation.

DRY DEACTIVATION

Extension of the fumigation period is the simplest method for further deactivation of partially spent product prior to disposal.

Partially spent or unreacted product may also be deactivated as follows using the "Dry Method'.

Spread product out onto the ground in a secure, open area away from inhabited buildings, protected from rain and groundwater, to be deactivated by atmospheric moisture.

Care should be taken to ensure that the product is not carried away by the wind. Do not use this procedure during periods of rain or if the soil is wet. After deactivation, the spent product may be gathered for disposal at approved sites.

Storage of partially spent product in a closed container may result in a fire hazard.

SPILL AND LEAK PROCEDURES

General Precautions and Directions

A spill, other than incidental to application or normal handling, may produce high levels of gas and, therefore, attending personnel must wear self-contained breathing apparatus (SCBA) or its equivalent when the concentration of phosphine gas is unknown. Other NIOSH/MSHA approved respiratory protection may be worn if the concentration is known to be less than or equal to 15 ppm. Do not use water at any time to clean up a spill of **KILLZ-ALL 60®**. Water in contact with unreacted metal phosphide will greatly accelerate the production of phosphine gas which could result in a toxic and/or fire hazard. Wear dry gloves of cotton or other material if contact with aluminum phosphide is likely.

Return all intact flasks of **KILLZ-ALL 60®** to boxes or other suitable packaging which has been properly marked according to DOT regulations. If applicable, notify consignee and shipper of damaged packaging.

If flasks have been punctured or damaged so as to leak, the container my be temporarily

repaired with aluminum tape and transferred to a sound metal container which should be sealed and properly labeled as aluminum phosphide according to DOT regulations. Transport the damaged flasks to an area suitable for pesticide storage for inspection. Further information and recommendations may be obtained, if required, from ROC ENTERPRISES, LLC.

Caution: The punctured flasks may flash upon opening at some later time.

If the flasks of **KILLZ-ALL 60**® have been damaged so severely that they cannot be temporarily repaired, or the product used immediately, these materials may be deactivated on site using the procedures described in Section 24. After deactivation, the spent product may be gathered for disposal at approved sites.

FOR ASSISTANCE, CONTACT:
ROC ENTERPRISES, LLC
1908 W. OLD 40 HWY
SALINA, KS 67401
Phone (800) 527-8215
Fax 785-820-9896

www.censtralstatesenterprises.com
Comments or Questions
info@centralse.com

KILLZ-ALL 60 60% TABLETS
KILLZ-ALL 60 60% PELLETS

WARRANTY
Seller warrants that this product conforms to its commercial description and when used according to label directions under normal conditions of use, it is reasonably fit for the purposes stated on the label. To the extent consistent with applicable law, the seller makes no other warranty, either express or implied, and Buyer assumes all risk should the product be used contrary to label.