By Cecil Tharp, Pesticide Education Specialist

Rebecca Toone, 4, and her 15 month old sister ‘Rachel’ died after inhaling phosphine gas from a commercial pesticide application of aluminum phosphide near their home to manage rodent populations (Photo’s courtesy of the Toone family).

EPA announced new restrictions on aluminum and magnesium phosphide fumigants as a result of recent pesticide poisonings. In February 2010, Rebecca Toone, 4, and her 15 month old sister, Rachel, died after apparently inhaling phosphine gas from a commercial pesticide application of aluminum phosphide near their home to manage rodent populations. It seems the commercial applicator neglected to read and follow the pesticide product label requirements which clearly describe a minimal distance from the residence of 15 feet.

This is not the first time fumigants have been connected to deaths across the U.S. Aluminum phosphide fumigants also killed one South Dakota girl in 2000, while sickening a family and killing their 2 year old girl in Lubbock, Texas in 2007 (pesticides.montana.edu/News/). All of these incidents have spurred EPA to implement new restrictions regarding the phosphine fumigants. These restrictions include:

- prohibiting all uses around residential areas.
- increasing buffer zones for treatment near non-residential buildings that may be occupied by people or animals.
- from 15 feet to 100 feet
- posting warning signs (placards) in fumigated areas that include a 24-hour emergency number, DANGER / PELIGRO, and that remain in place for 48 hours.
- using only on burrowing pests in agricultural areas, orchards, non-crop areas (such as pasture and rangeland), golf courses, athletic fields, parks and recreational areas, cemeteries, airports, rights-of-way, earthen dams, and other non-residential institutional or industrial sites.
- writing fumigant management plans before all applications of phosphine products, including all burrowing pest fumigations.
Steve Owens, assistant administrator of EPA’s Office of Prevention, was quoted as saying “These new safeguards prohibit the use of these toxic pesticides near homes and impose restrictions to protect our families from exposure to them.” Nathan and Brenda Toone (Leyton girl parents), said they “applaud any efforts by government officials to continually seek to improve the safety of our community.”

Some examples of pesticide products that are effected by this action include:

- Fumi-Strip - Detaphos
- Fumi-cel - Fumitoxin
- Magtoxin Granules - Gastoix
- Fumex - Phosfume
- Phostoxin - Weevil-cide

Montana private and commercial / government applicators in the category of ‘Industrial, Institutional, Structural and Health-Related Pest Control’ may apply fumigants for managing pest infestations. These applicators should be aware of these EPA rule changes and remain vigilant with reading and following all product label requirements. Montana certified applicators should realize they are the key to preventing this type of pesticide poisoning from occurring close to home.

*Degesch America, the technical registrant, will provide new labeling to its applicators by May 1st, 2010. Degesch America will be supplying distribution centers with a one-page label alert that informs certified applicators of the changes.*

**FOR FURTHER INFORMATION CONTACT:** Information regarding this EPA news release and aluminum and magnesium phosphide can be found at [www.epa.gov/oppsrrd1/reregistration/alphosphide/](http://www.epa.gov/oppsrrd1/reregistration/alphosphide/). If you have questions regarding this article contact the MSU Pesticide Education program (Cecil Tharp, Pesticide Education Specialist, 406-994-5067, ctharp@montana.edu).