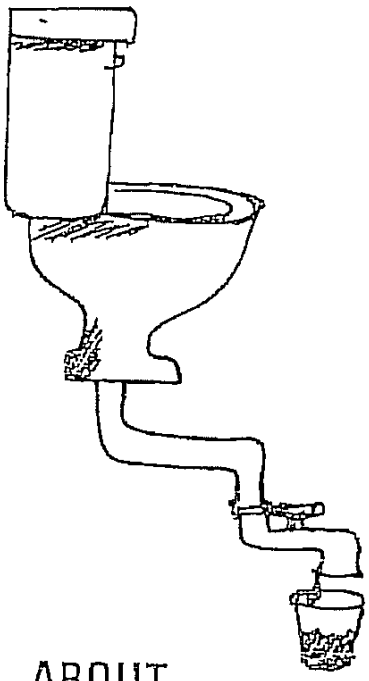
ARE YOU PARTICULAR . . .



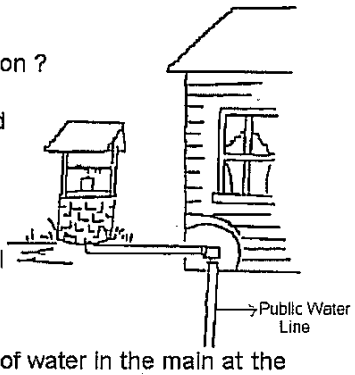
ABOUT WHAT YOU DRINK?

You can't see harmful substances in WATER...

You could unknowingly contaminate your community water supply !
How ? through Back-siphonage or Cross Connection ...

What Is A Cross Connection ?

Example: Maybe you had a well or cistern before a public water supply was brought into your neighborhood.
Now you have city or rural water and you still have your well connected.

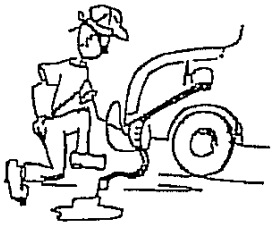


If there is a sudden loss of water in the main at the same time that you're using the well, your water could be forced back into the main.

The well connected to the same plumbing as your public water is creating a Cross Connection !

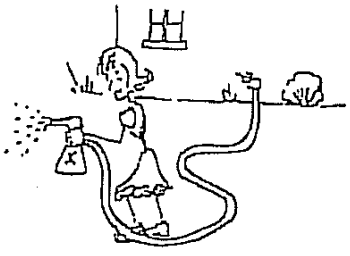
What Is Back Siphonage?

Example: If someone withdraws gas from your car's tank, he has created a reversal of the normal flow, which causes a vacuum.



Now, what if you connect an insecticide spray gun to your garden hose ?

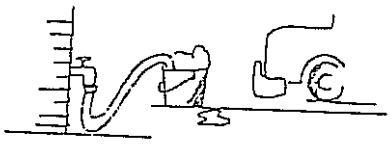
If a vacuum would occur in the waer main (created by a line break or sudden withdrawal due to a neighborhood fire,) your insecticide could be pulled back through your garden hose, through your plumbing, and out into the water system...



Poisoning your family and threatening other families !

... or Washing Your Car ?

The end of your garden hose in a bucket of detergent water is a Cross Connection and a potential hazard through Back-siphonage!

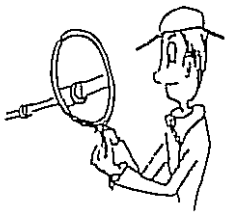


What Has Been Done To Protect You As A Water User ?

In July, 1985 the Indiana Environmental Management Board of the Indiana State Board of Health passed a

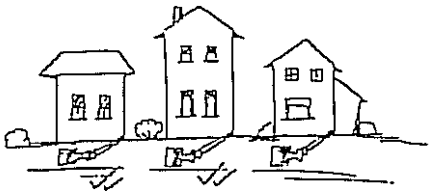
CROSS CONNECTION CONTROL RULE.

The Rule meant to keep your water safe from hazards originating from commercial or industrial establishments. This will be accomplished by inspection of any possible Cross Connection hazards - as well as inspection of new commercial or industrial construction!



What Can You Do To Protect Your Family and Neighbors ?

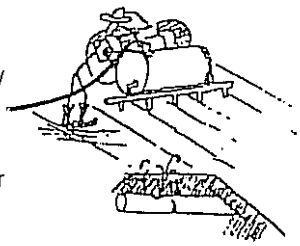
A properly operating Double Check Valve attached to your water meter can prevent any possibility of Back-pressure from your plumbing contaminating your household or neighbors on down the line !



The Indiana State Board of Health has recommended that Double Check Valves be installed at every sevice - even through it is not currently required by the Cross Connection Rule.
You may help by supporting your utility in establishing a Policy of installing Double Check Valves !

Herbicidal Homicide ?

In agricultural applications, a hose submerged in a spray tank containing toxic material, and not properly protected at the sill cock or pressure tap, can siphon the tank mixture back into the public water supply.



This suction can be created in the water supply by either high demand in the system - fire fighting or main breaks.

CROSS CONNECTIONS AND THEIR CONSEQUENCES

Attention: Commercial & Industrial Falilities !

Cross Connection: Any unprotected connection between any part of a water system used or intended to supply water for drinking purposes and any system containing water or substances that is not or cannot be approved as safe, wholesome and palatable.

The need for an agressive program of Cross Connection inspection and control, in every public water supply system, has been well established.

Case histories of illness, injury or even death from improper Cross Connections in water distribution systems of the past have been a grim reminder that hazards exist!

This Cross Connection Rule became effective on July 19, 1985 and is know as 320 IAC 3-9.1.

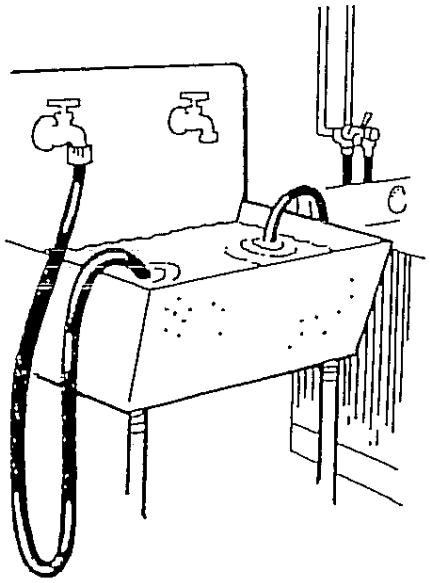
For the many public water supplies in Indiana it will give them an increased voice in how their water must be utilized inside of commercial establishments.

Example: Heretofore, a manufacturing plant could use wholesome water in chemical baths and, without this protevtive Rule, could accidently force or siphon this contaminated water back into the supply main of the water works. Therby, the questionable mix of water and chemicals could be used by an unsuspecting customer further down the supply main.

The rule just enacted with greatly enhance the right of the State and County Health Departments to inspect commercial establishments built after July 19, 1985. Health departments in Indiana should also benefit from the knowledge that those installations, that were deemed to be a hazard by a definition in the Rule, are being monitored periodically by Certified Testers that have trained in this type of specialized inspection.

What is a cross connection ?

A cross connection is a direct arrangement of a piping line which allows the potable water supply to be connected to a line which contains a contaminant. An example is the common garden hose attached to a sill cock with the end of the hose lying in a cesspool. Other examples are a garden hose attached to a service sink with the end of the hose submerged in a tub full of detergent , supply lines to boilers.

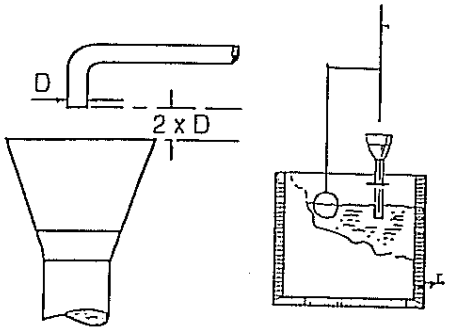


What is the most common form of a cross connection ?

Ironically, the ordinary garden hose is the most common offender as it can be easily connected to the potable water supply and used for a variety of potentially dangerous applications.

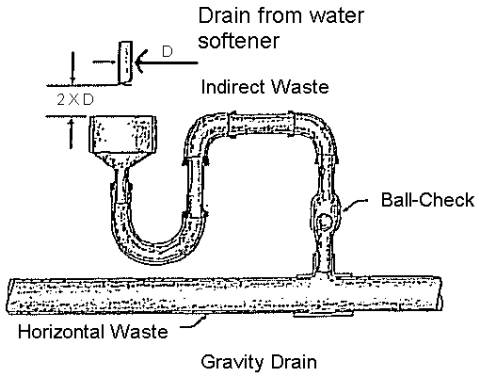
The Ultimate Form of Protection against a cross connection is an Air Gap.

Air Gap is the physical separation of the potable and non-potable system by an air space. The vertical distance between the supply pipe and the flood level rim should be two times the diameter of the supply pipe, but never less than 1". The air gap can be used on a direct or inlet connection and for all toxic substances.



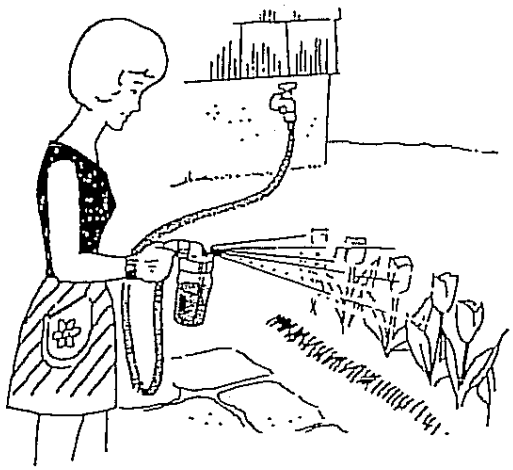
INDIANA PLUMBING CODE

Direct connections between potable water piping and sewer connected wastes shall not exist under any condition, with or without backflow protection. Where potable water is discharged to the drainage system, it shall be by means of an approved air-gap of two pipe diameters of the supply inlet, but in no case shall the gap be less than 1".



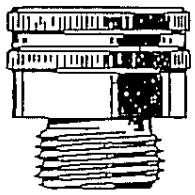
What is potentially dangerous about an unprotected sill cock?

The purpose of a sill cock is to permit easy attachment of a hose for outside watering purposes. However, a garden hose can be extremely hazardous because they are left submerged in swimming pools, lay in elevated locations (above the sill cock) watering shrubs, chemicals sprayers are attached to hoses for weed-killing, etc.; and hoses are often left laying on the ground which may be contaminated with fertilizer, cesspools, and garden chemicals.



What protection is required for sill cocks ?

A hose bibb vacuum breaker should be installed on every sill cock to isolate garden hose applications thus protecting the potable water supply from contamination.



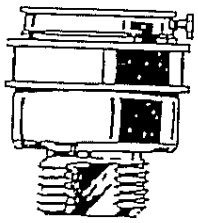
Hose Bibb Vacuum Breaker
Watts 8

Where is a Hose Bibb Vacuum Breaker used?

Hose Bibb Vacuum Breakers are small inexpensive devices with hose connections which are simply attached to sill cocks and threaded faucets or wherever there is a possibility of a hose being attached which could be introduced to a contaminant. However, like the Atmospheric Vacuum Breaker they should not be used under continuous pressure.

Should a hose bibb vacuum breaker be used on frost-free hydrants ?

Definitely, providing the device is equipped with means to permit the line to drain after the hydrant is shut-off. A "removable" type hose bibb vacuum breaker could allow the hydrant to be drained, but the possibility exists that users might fail to remove it for draining purposes, thus defeating the benefit of the frost-proof hydrant feature. If the device is of the "Non-Removable" type, be sure it is equipped with means to drain the line to prevent winter freezing.



Hose Bibb Vacuum Breaker
for Frost-Proof Hydrants
Watts NF8