

The Idaho Drinking Water Newsletter

Department of Environmental Quality Idaho Drinking Water Program

www.deq.idaho.gov/water/prog_issues.cfm

June 2007, Number 44

Reminder: Idaho DW Rules require a Facility Plan

For new or existing systems undergoing modifications or expansion

All new public drinking water systems and existing systems undergoing material modifications or expansion must have a current "Facility Plan" according to Idaho's Rules for Public Drinking Water Systems.

So where do you find the guidelines for writing a facility plan (sometimes referred to as a "master plan")? The contents of a facility plan are outlined in Section 502 of the Rules for Public Drinking Water Systems (IDAPA 58.01.08.). You can find the rules on the Internet at <http://adm.idaho.gov/adminrules/rules/idapa58/0108.pdf>.

Remember - systems must submit a facility plan to DEQ *prior* to the submission of a project's plans and specifications for review and approval. A facility plan is only the first step in a three-step process (*see sidebar*) when seeking approval for a new system or making modifications to an existing system.

Required three-step process before construction begins

For new systems starting up or for existing systems making substantial changes there is a required three-step process before construction can begin:

Step #1) Develop a Facility Plan and submit to DEQ for approval;

Step #2) Submit a Preliminary Engineering Report to DEQ for approval, and

Step #3) Submit a project's plan and specifications to DEQ for final review and approval.

Important items to consider when preparing your Facility Plan

When preparing a facility plan, DEQ stresses that it is important to pay particular attention to the following required components:

- **Standby Power.** Does the system provide for standby power for water source, treatment, and pumping facilities necessary to deliver average daily water demand in case it is ever needed?
- **Pumping Redundancy.** In other words, does the system have sufficient backup pumping in times of emergency?
- **Components of Storage.** Describe the various aspects of your system's finished water storage, such as dead storage, operational storage, fire suppression storage, etc.

For new systems and existing systems seeking modifications, you will fall into one of the facility plan categories below:

1. **You have no approved facility plan.** A plan must be developed and submitted to DEQ for approval. No construction projects will be approved without a facility plan.
2. **You have a facility plan, but it must be updated.** If your plan does not address the issues of standby power, pumping redundancy, or components of storage, then a professional engineer must update these elements. An updated Facility Plan must be approved by DEQ before major construction projects are submitted to DEQ for approval.

DEQ will not require a Facility Plan to be updated, however, at the time of the submission of QLPE (Qualified Licensed Professional Engineer) approved projects or for routine water main extensions submitted to DEQ for plan and spec review.

Nevertheless, such plan and specs must be designed under the most recent Idaho Rules for Public Drinking Water Systems, and a new Facility Plan or an addendum to the plan should be completed and submitted at a later date.

3. **You have a current facility plan.** If your current plan addresses the requirements for standby power, pumping redundancy, and components of storage, then a simple confirmation will suffice for DEQ's records. Ask the professional engineer who completed your plan to send DEQ verification of these elements and where they are located in the plan.

Existing systems not planning on changes

An existing system not planning on expansion or undergoing material modification is generally exempt from these facility planning requirements. Such systems may

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Attention Idaho public water systems

Your system may be vulnerable to copper theft

DEQ advises owners/operators to step up security measures

With the price of copper steadily increasing over the past few years, so has the level of copper theft. Not only are thieves hitting construction sites, electric substations, and power poles, but also the well houses of drinking water utilities.

In many states, water systems are reporting the theft of electric wiring, backflow prevention devices, copper tubing, and any fittings made of copper or brass.

Driving this wave of thefts is the rising price of copper currently ranging around \$2.20 - \$3.00 per pound compared (according to one report) to \$1.25 in January 2004. The thieves sell the stolen copper to scrap yards and recycling centers for quick cash.

A check of the DEQ's six regional offices shows one report of copper theft from a public water system in the Idaho Falls regional area in eastern Idaho.

Sometime between February and March of this year, the Kelley Island Campground, a public water system operated by Idaho Falls District Office of the Bureau of Land Management (BLM), was the target of copper theft.

Thieves broke into the well house and took "everything that was copper or brass and even pulled the submersible well pump to get the copper wiring," according to Brent Burrell of the Idaho Falls BLM office.

About 125 miles to the west, the Twin Falls BLM District Office reports an increase of incidents of illegal "wire burning" on public and state lands in their jurisdiction ("about 12 in the last two to three years").

With copper wire in hand, the thieves head to isolated areas or camping and

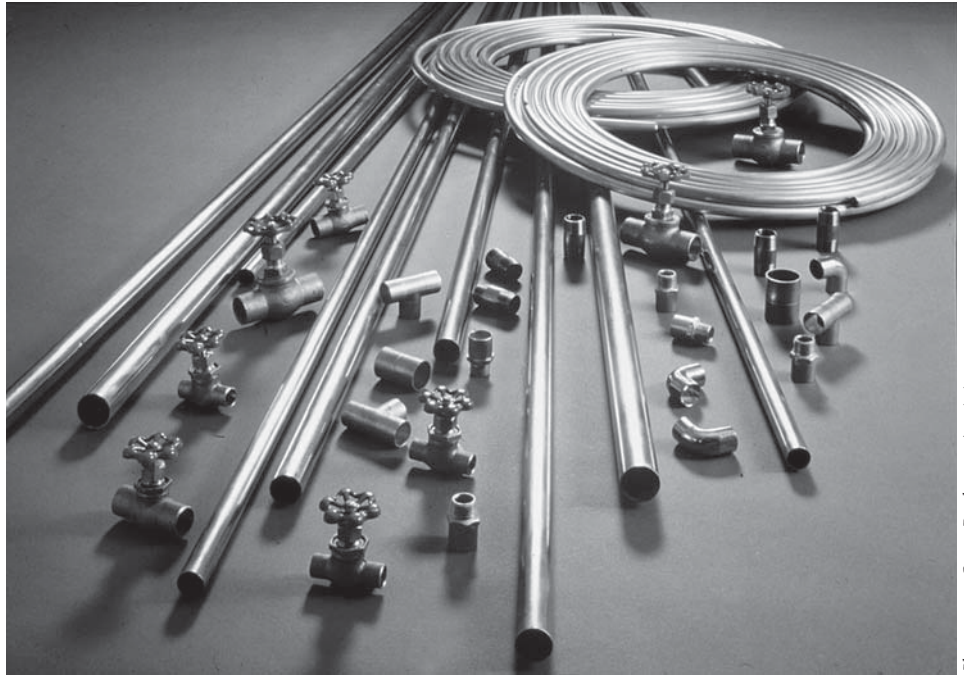


Photo courtesy Copper Development Association

Copper theft is an increasing problem nationwide. Idaho system owners may want to step up their security.

recreational sites to burn the casing off the wire leaving behind hazardous materials and the high costs of cleanup – in one case, over \$3,000. (Wire without the casing sells for a higher price.)

Thefts costly to victims

For water systems copper thefts can prove costly. The added expense of repairing damage to a well house and the replacement of missing items (such as copper piping, electrical wire, meters) not to mention the temporary loss of drinking water to customers begins to add up.

At the Kelley Island Campground break-in, authorities estimate that the thieves made off with about \$50 worth of copper, but it cost the BLM about \$3,500 to repair the damages and replace parts.

Stealing copper – not only illegal but deadly

When thieves attempt to remove copper wire from utility-related property,

they are not only committing a crime, but risking serious injury or death by exposure to an energized line.

Various incidents are reported by other states, for example, inexperienced thieves who have cut into live wires, power lines, and electrical transformers have been severely burned or lost arms and legs or died.

Across the nation, according to a December 13, 2006 Seattle Times article, at least 10 electrocutions were reported in 2006 during copper wire thefts.

Guarding against break-ins

Being aware of the increase in copper theft, you can prepare now by increasing the security of your water system.

Vigilance may be the best means of protection, but DEQ lists some suggestions below, which may help protect your water system from copper theft or vandalism:

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Copper theft, continued from page 2

- Increase lighting such as motion-sensor lights on the outside of your pump house to deter possible thieves.
- Post “No Trespassing” or “Security surveillance system in operation” signs.
- Store tools and wire cutters in a secure location, and never leave them out while away.
- Install security systems such as an audible alarm - when a wire is cut or a well house door is opened a loud horn is sounded.
- Install a security camera that is monitored 24 hours a day.
- Hire off duty officers and/or security personnel if necessary.

Although there is no perfect solution to eliminate theft, initiating some or all of these suggestions may help prevent break-ins and the resulting theft or vandalism. If you see suspicious activity, contact your local law enforcement. ■

Reminder to Systems: Be cautious about storing and securing chlorine tanks.

PWSs with gaseous chlorine cylinders onsite should store them in a secure area behind locked doors. This area should be patrolled regularly. Missing or tampered with chlorine containers should be reported to local law enforcement authorities.

The major concern about unguarded chlorine gas supplies at water treatment facilities is that terrorists, thieves, or vandals could release the gas into the air or water. And in stronger concentrations, chlorine gas causes choking and tissue damage and can be fatal.

Of further concern is that if the chlorine is not available for injection into the water supply (e.g., someone steals the tanks), then the distribution system is deprived of an additional protective barrier and the public’s health is threatened.

Like-kind replacements

When do they require engineering?

What constitutes “like-kind replacements” for Idaho’s public drinking water systems? To answer that question, let’s start with a general definition: “Like-kind replacement” refers to replacement of the “same-as” *equipment or components* that meet the design standards already specified in the plans approved by the Department of Environmental Quality (DEQ). Examples would include like-kind pump replacement or like-kind replacement of components such as valves or meters.

Examples of actions that are not like-kind replacement and that would require engineering skills prior to repair or replacement include (but not limited to) the following:

- replacement waterlines that change in size, alignment, or material;
- new storage tanks;
- modifications in storage;
- new booster stations;
- changes in pump capacity and auxiliary power;
- any new source or alteration in source of water, including connection to another source or distribution system;
- any physical alteration in collection facilities or equipment; and
- whenever the public health or safety is involved.

As an owner or operator of a public water system, the best approach to “what is or is not” like-kind replacement is to check with your local DEQ regional office, with specifications in hand, before replacing equipment or components in your system. Also, you may contact the Board of Professional Engineers at 208-373-7210 if you have questions about whether an engineer needs to be involved in a particular project such as those listed above.

Remember also that installing equipment or making modifications to a regulated public water system requires plan and specification approval by DEQ *before* you make installations or modifications. Failure to do so is a violation of Idaho Code §39-118 and IDAPA 58.01.08.502, and can ultimately lead to enforcement and penalties. ■

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be older systems, however, that were approved under earlier rules and procedures that did not require redundant pumping facilities for peak hour, fire flow conditions, or both, and may not have standby power for power outages.

If concerned, those system owners may want to consider voluntary upgrades to be better prepared for emergencies which may occur in the future.

Facility plans are required in Idaho because they improve public health protection and ensure that all consumers receive safe and reliable drinking water.

Questions? Contact your local DEQ regional office. ■

Training Schedule

Class/Sponsor	Location/Date		
Fire Hydrant & Valve Workshop (IRWA) - W	Moscow, 06/14/07	Pumps & Motors (BE) - W/WW	CDA, 08/01-02/07
Leak Detention (BE) - W	Twin Falls, 06/20/07	Hach Trailer Water Tests (BE) - W	Pocatello, 08/06/07
Leak Detention (BE) - W	Rexburg, 06/21/07	Leak Detect, X-Connect, Pumps & Motors (IRWA)	CDA, 08/07/07
Asset Management/Financial Capacity (IRWA) - W/WW	Meridian, 06/26/07	Hach Trailer Water Tests (BE) - W	Meridian, 08/08/07
Basic Cross-Connection (IRWA) - W	Malad, 06/28/07	Hach Trailer Water Tests (BE) - W	Post Falls, 08/10/07
Basic Cross-Connection (IRWA) - W	Payette, 07/10/07	Cross Connections (BE) - W/WW	Rexburg, 08/14/07
Water I & II Licensure Review (BE) - W	Pocatello, 07/10-11/07	Board Member Training (IRWA) - W/WW	Meridian, 08/28/07
Sampling Plans (BE) - W	Idaho Falls, 07/12/07		
Fire Hydrant & Valve Workshop (IRWA) - W	Mt Home, 07/12/07	<p><i>(BE) = Brown Environmental, Inc.</i> <i>(IRWA) = Idaho Rural Water Association,</i> <i>For further information, contact the following:</i> <i>Brown Environmental, Inc. 1-800-543-4358</i> <i>or for the Boise area, 1-208-465-5725.</i> <i>Web site: www.idahooperatortraining.com.</i> <i>Idaho Rural Water Association 1-800-962-3257</i> <i>or 1-208-343-7001, Fax: 1-208-343-1866.</i> <i>E-mail: acole@idaboruralwater.com, Web site: www.idaboruralwater.com.</i></p>	
Water Tank Maintenance (BE) - W	Kuna, 07/24/07		
Odor (BE) - W/WW	Boise, 07/25/07		
Fire Hydrant & Valve Workshop (IRWA) - W	Bellevue, 07/31/07		
Asset Management/Financial Capacity (IRWA) - W/WW	Mt Home, 08/01/07		

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