

More PLANT PROBLEMS

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pressure and temperature of system on valve tag. Number on tag should correspond to that for valve on the drawings.

4. Temporary valve pits may be made of wood with a metal cover. Permanent valve pits or manholes are best made of concrete because they have a longer life and need less maintenance.

H D WAYNE Brooklyn, N. Y.

MY ADVICE to BL is to start by making a simple line diagram of his external water system. Show on this diagram all information concerning the system, including recent changes workmen may remember accurately. Men who dig a ditch and handle heavy pipes and valves usually have an excellent idea of just where the work occurred.

Use metal detectors to find where takeoffs leave the main line, and the route of unknown pipes. Secure a 1-in. earth auger driven by a 1/2- or 3/4-in. electric drill. Drive auger into ground when detector shows metal whose purpose is unknown. Lower a small light into hole to determine metal shape.

Compressed-air line can be used to clean hole, if necessary. Use a sharpened steel rod to probe for shallow

pipes. Cracks in ground or a difference in texture often show where a ditch has been dug.

Use a 4x4-in. piece of floorplate or a nonferrous plate to mark valve location. Fit it with two legs to prevent it turning. Mount flush with ground in summer, raise it above usual snow level in winter. Mark valve-identifying data on plate surface.

D L COCHRANE Milaca, Minn.

START FROM WATER METER, tracing out lines with a mine detector. Make a drawing of pipes as you proceed. Locate each valve with respect to some permanent landmark.

Hang pipe drawing in maintenance office so all new employees can become familiar with it. We have a drawing like this in my plant and it has always been a big help.

ERNEST SIDSWITZ Brooklyn, N. Y.

INSTALL NEW VALVES in lines when they are located. This saves digging cost and allows positive identification of valves. Revise piping drawings and operating instructions to include these new valves.

Use metal, concrete or wooden pits to protect underground valves. Pour

crushed stone into pit bottom to permit good drainage. Allow surrounding grass to grow over pit cover, if desired.

A J BREUGELMANS

New York, N. Y.

TRY TO BORROW a pipe-locating device from your local water department or a nearby large company. Use it to trace out piping system, making a simple line diagram as you proceed. Assign numbers to valves and fit with post indicators to show if they are open or closed. BL can use extension valve boxes so lawn mowing will be easy.

G E BOYHAN New York, N. Y.

BEST PLAN is to have all main shut-off valves in basement of building they serve. Then you have no worries about snow covering them in winter or corrosion from rain and moisture.

A A HUNNINKEL

Woodstock, Ill.

GROUND-LEVEL MARKERS of aluminum are good. BL should try a few and see. Fit markers with an opening for the valve stem. Have markings large enough so they are easily read. Aluminum markers are good above ground, too.

CC HOWARTER Canton, Ill.

Question No. 2: How Can We Stop These Valve Leaks?

HERE ARE THE FACTS: Valves in lines to our two low-pressure feedwater heaters leak when the load is low. These valves are in vent, steam and drain lines for the heaters.

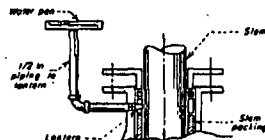
Plant is rated at 400,000 kw. Air appears to leak through valve packing at the gland. There's some leakage at stem, too.

New packing doesn't help much. Air that leaks

through the valves shows up in our condensers, hurts plant performance.

Since most of these valves are fully open or fully closed, we've been wondering if reversing them in the line would help. Flow would act on top of globe-valve disk, instead of bottom. Condensate on disk top would help seal valve while it is closed. Or is there a better seal?—GD, April Power

Here Are the Answers



ATMOSPHERIC PRESSURE, being higher than heater and condenser pressure, causes air leakage into the system. Use valves with lantern rings in bonnet to stop leakage. Supply clean water (condensate or boiler feed) to rings. Sketch shows a pan arrangement for feeding water to lantern ring.

GD may fit rings to valves himself or have valve manufacturer do the job. If only a few small valves are needed, it may be cheaper to replace existing with new ones made especially for this service. Results are better.

II B WAYNE Brooklyn, N. Y.

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