

## TRADITIONAL EFFECTS: Rain

### Problem:

The director wants rain. Real, live, wet, messy water on your stage.

### Considerations:

Michael Powers (1) in an article about stage rain describes six (interconnected) areas of consideration when creating a rain effect:

- supply - where the water comes from (e.g. sink/faucet, holding tank)
- delivery - how the water gets to the stage from the supply
- recovery - where the water goes after it falls
- storage - related to recovery and/or supply, depending on setup
- control - on/off, rate of flow, safety backups
- water quality - temperature, purity, and cleanliness

### Application:

I will attempt to illustrate Powers' areas of consideration in the context of a water-pipe-behind-a-window rain effect.

**Supply:** A back-stage sink or holding tank would both be sensible options to supply this type of rain effect. If the rain was going to last for the entire play, the holding tank would probably be the better option so that the water could be in a recirculating system and less total water used. The advantage of a sink is that you could probably avoid using a pump at all, depending on the recovery mechanism. The sink option also has water quality advantages over a tank which will be discussed in that section. Finally, if the sink system leaks, 'infinitely' much water can be everywhere, but if a holding tank system leaks, only the total amount of water in the system is available to make mess.

**Delivery:** In this case we're talking about using a rain pipe. Let's assume it's the style where the holes point up and there's a sleeve pipe over the top

to prevent the water from spraying everywhere. To get the water from a sink to the pipe, a simple hose setup could deliver water from the faucet to the pipe. In the case of a holding tank, the tank could be placed sufficiently high above the pipe to create the pressure needed to force water out. Water could be pumped through the system from any height, such as a collecting tank at floor level.

**Recovery:** On this scale a trough should be adequate to collect water under the window. Incline the trough to the left or right and have the water collect in a bucket or some type of holding tank more than large enough to hold all the water expected to be used in one show, or connect a bucket to a hose leading to a drain. As mentioned in 'supply' and 'delivery,' this water, if not drained, could be pumped back up to an upper holding tank or directly to the water pipe and re-used. General waterproofing in the area is a good idea: since most of the water should be caught in the trough it would be protective but not expected to hold volumes of standing water on a regular basis. Lining the back of the flats and the area around the trough with plastic, sealed with overlap and tape at the seams, and having a raised edge around a larger area than the trough covers could provide some backup for water collection.

**Storage:** The holding tanks for supply and/or recovery need to be able to hold the water (more than 8 lbs/gallon!) without contaminating it with rust, etc. Plastic or plastic-lined metal are viable options, as well as properly treated wood (for the trough).

**Control:** Obviously there need to be controls for starting and stopping the rain for regular cues. There should also be backup places to stop the system should a leak develop, etc. This is to say that a sink-supplied system should be regulated by more than just the faucet; an additional valve would be good. Likewise there should be multiple places for control in a recirculating system.

**Water Quality:** Water quality is much less critical in a system like this where the water is designed to fall on a window and not on people. If people were getting drenched, the temperature of the water would be important, but for this application it probably doesn't matter. When the water comes from a sink and flows through and out of the system, the water is already safe to drink (one would hope!) and clean. If the water sits in a recirculating storage system it needs to be filtered for particles (to keep the system in good working order) and treated to keep it from growing bacteria. Again this is more critical when the water is falling on people but you still don't want nasty stuff growing in the water!

## References:

- (1) <http://www.1501broadway.com/library/1298.txt>  
Techie's Corner: "Rain!" Michael Powers. Decemeber 1998 issue of  
CyberTheatre Monthly (at least I think it is...)