



WHITE FLAKES, FLECKS, AND FRAGMENTS

WHAT ARE THOSE FLAKY PARTICLES IN MY WATER?

A few years ago, customers began calling the Water Treatment Facility to report particles clogging their shower heads, faucets, and appliances, floating in bath tubs and coffee cups, and reducing water pressure. The particles were described as whitish or light green, resembling eggshells, scale, oatmeal, or clay. A puzzling laboratory investigation finally revealed that the flakes consisted of some sort of plastic, and that the source was limited to the hot water.

We now know that this problem has been plaguing consumers all over the country for the past several years. Residential water heaters contain a “dip tube” that is commonly made of plastic. The dip tube is basically an extension of the cold water inlet that extends nearly to the bottom of the tank and directs cold water to the bottom to be heated. Most dip tubes in newer water heaters are made of plastic. From August 1993 through October 1996, a series of defective dip tubes were installed in most major brands of water heaters. The defect causes the dip tubes to degrade and disintegrate within an average time of three to five years. The result is that particles of this disintegrated plastic are released into the home plumbing to clog fixtures and reduce water pressure. The list of manufacturers includes:

- Rheem Manufacturing Company
- A.O. Smith Corporation
- Bradford White Corporation
- American Water Heater Company
- Lochinvar Corporation
- State Industries, Inc.

Water heaters sold under a number of other brand names may have been manufactured by one of these six companies.

ARE THE PARTICLES TOXIC?

The plastic particles are not toxic, nor do they make the water toxic.

WHAT'S THE SOLUTION?

First, confirm that the problem is limited to the hot water. In many homes, the hot and cold taps do not have separate faucets, so it may be hard to tell. The washing machine is generally a good place to look. Disconnect the inlet hoses and check to see if the particles are present on the screens of both the hot and cold inlets, or just the hot water.

Once a defective dip tube is confirmed, check the age and warranty period on your water heater. If the unit is less than five years old, it's likely still under warranty and the manufacturer should be willing to repair or replace it. Contact your plumber, building contractor, or the manufacturer to report the problem. You will need to have the manufacturer, model number and serial number ready when you call; other useful information might include the date of purchase or installation, and your warranty documents.