A power plant in the midwest was continuously having to repair standard soft-seated knifegate valves on their Pyrite ash system. The ash would stick to the gate and be pulled up into the packing gland area each time the valve was cycled. The abrasive ash would quickly wear the packing and cause the valves to leak under pressure. When the valve was closed, the large particles of ash would clog in the seating area and deflect the gate causing it to bend and leak. The plant tried many different brands of knifegates, but none would solve the problem.

The plant then installed a 10” Red Valve Flexgate® Actuated Slurry Knifegate Valve with EPDM seats on a six month test period. By the end of the test, the plant had experienced no leaking at the packing, and the valve had seated perfectly every time. The Flexgate features two heavy-duty elastomer cartridge seats that trap the gate between them to provide a bi-directional seal. The seats effectively wiped the seats clean of ash when opening, preventing contamination of the packing gland. The seats also prevented ash from building up beneath the gate, and kept the gate firmly in place so that it could not deflect. Flexgates are now the only knifegate valve approved for service in this plant.