

Safety Alert

Queen Mary Reservoir – wall collapse

SA 00262

11th December 2017



Introduction

Queen Mary reservoir is part of a wider raw water storage system, which feeds London with potable drinking water. As part of the statutory program for emergency draw down of these reservoirs, isolation valves need to be operated on a regular basis. The valves houses are small buildings, which protect these valves. Over the last ten years these building had been hardened to prevent vandalism.



What happened?

On Thursday 2nd November whilst undertaking a planned valve operation at the Queen Mary reservoir outlet; there was an incident which caused significant damage to the brick valve house located on the crest of the Queen Mary Reservoir.

It is thought that as the valve house was nearly air tight, the sudden compression of air caused by water filling the partially dewatered tunnel and forcing air into the valve house may have potentially caused the north-eastern wall of the building to collapse.

There was no one injured at the time of the incident



Action required

Where existing buildings have been updated or improved, please check ventilation arrangements are adequate and have not been compromised.

If operating valves or rerouting fluids in large partially closed systems check there are adequate spaces for sudden air movements and this includes compression or expansion.

This includes:

- Check ventilation louvres in walls are not blocked or covered.
- Check open mesh grating floors are secure and not covered.
- Ensure any change to the shaft flooring or valve house structure is preceded with a proper design review.

