



Cross connection to a rain water harvesting system at a Primary School.

INSPECTION

In May 2013 a routine water fittings inspection of a primary school found the installation of a rainwater harvesting system (RWH) used to store and provide water to all the schools toilet flushing cisterns. The RWH cistern also received mains water back up supply via a tundish incorporating a type AA air gap to replenish the storage cistern in dry weather.

On inspection it was noted that this perfectly acceptable arrangement was bypassed and an illegal direct connection made to the public water supply. This meant a risk of the contents of the RWH cistern entering the public and the schools drinking water supply under certain conditions. The company’s regulation officer identified the risk and served a formal notice to remove the illegal cross connection.

RESOLUTION

Initially the school was in no immediate rush to remove the backup connection and replace the RWH pump which had stopped working and in urgent need of repair or replacing with a new pump, in fact they thought that the back supply was actually reducing the associated running and

operating cost of the RWH pump. The school was advised to remove the mains water backup supply and replace the pump with a dual pump to help prevent future loss of supply should the single pump fail.

The follow up inspection confirmed the school had followed the water company’s advice and replaced the single pump with a dual pump set and completed the remediation work in compliance with Water Fittings Regulations.

CONCLUSIONS

RWH systems like this one are inspected at the time of installation and re-inspected periodically to confirm continued compliance with the fittings regulations. The water company’s Regulation Officers have previously found similar types of breach of the regulations in other schools due to pump or maintenance failures, which have resulted in emergency connections to maintain the water supply. Whilst at the original point of inspection new systems may be compliant, during follow up inspections we are observing that maintenance interventions have resulted in contraventions given that repairs to grey water systems can be costly, and a cross connection is considered a cheaper immediate fix.

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