

## Safeguarding Invaluable Bio Research Watts Flood Protection Valve Prevents Against Costly Flood Damage

**Industry:**  
Education

**Category:**  
Flow Control

**Location:**  
Amherst, MA

**Installation:**  
Watts 113-6RFP



*"We could have come up with a solution, like designing a pump system, but the Watts Flood Protection Valve was a more economical solution."  
--Rand Refrigeri, PE,  
Chief Plumbing Engineer, RDK Engineers*

- CUSTOMER:** University of Massachusetts Life Sciences Building
- SCOPE:** Protect valuable laboratory research from flood damage or destruction due to backflow preventer discharge
- CHALLENGE:** The Life Science building's mechanical space location made adjacent critical spaces vulnerable to possible flood conditions from installed large capacity RPZ Backflow Devices. Since irreplaceable research is conducted on the facility's lower levels, ensuring proper drainage & protection from flooding was critical.
- SOLUTION:** 20 Watts 113-6RFP Flood Protection Shutdown Valves
- RESULTS:** Economical solution that saved money & resources

The engineers involved in designing one of the University of Massachusetts' state-of-the-art bio research buildings implemented an economical solution for protecting the University's valuable laboratory research space at the lower levels of the facility: The Watts 113-6RFP Flood Protection Shutdown Valve.

In some ways the UMass Life Sciences building is the "perfect storm" application for the Watts flood protection valve, said Rand Refrigeri, PE, of RDK Engineers. "A flood would cause extensive and costly damage in the facility lower levels where very critical research space is located.

The building contains 20 Watts backflow preventers. Although the facility can handle discharge for most instances it cannot, without pumps, handle the drainage from large-scale Backflow devices. RDK specified flood protection valves upstream from the RPZ backflow preventers on piping greater than 3" in order to protect against potential flood damage.

"Without the flood protection valves, very large and likely never used high cost containment pumps would have been included, but, even at that, designing pumps to handle the 1,600 gallons/minute flowing through our 8" main is not the right solution," said Rand. "The Watts flood protection valve was a better and a more economical solution."



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