### Determining Risk

For the purposes of this Risk Assessment, a Laboratory Equipment Washing Machine is a Device used for Cleaning items or clothing used in a Laboratory at, for example, Industrial, Chemical and Pharmaceutical Premises etc. or any other place viewed as a similar Risk by the Water Undertaker. The Risk is from the fluid contents a Laboratory Equipment Washing Machine at a Non-Domestic Premises may contain returning into the Supply and therefore requires Backflow Protection.

Laboratory Equipment Washing Machines should be an Approved Fitting preferably with a current listing in the Water Regulations Advisory Scheme (WRAS) 'Water Fittings and Materials Directory'. For more guidance on the requirements to use Approved Fittings see SD-0012.

The device used to prevent backflow shall be appropriate to the highest applicable fluid category to which the fitting is subject downstream before the next device.

### Degree or Category of Risk

Laboratory Equipment Washing Machines at Non-Domestic Premises have the potential to return into the Supply a concentration of Pathogenic Organisms, Radioactive or Very Toxic substances, including any fluid which contains:

- a) Faecal Material or other Human Waste or
- b) Butchery or other Animal Waste or
- c) Pathogens from any other source.

Laboratory Equipment Washing Machines at Non-Domestic Premises require Backflow Protection for a Fluid Category 5 Risk. The following list of Premises where Laboratory Equipment Washing Machines could be used is not exhaustive and any place viewed as a Laboratory by the Water Undertaker will also require Washing Machines to have adequate Backflow Protection.

1. Medical Premises including Hospitals, Dentists and Health Care
2. Veterinary Surgeries
3. Abattoirs, Slaughter Houses and Food Processors (Animal and Vegetable)
4. Industrial Processes, Chemical Plant also Pharmaceutical Production and Research
5. Agricultural or Horticultural Premises including Farms and Hydroponic Systems

For more guidance on Identifying Serious Health Risk Premises See SD-0003.

### Comments & Conclusions

A pragmatic approach should always be employed and a Washing Machine suitable for less than a Fluid Category 5 Risk may be fitted at Premises with a Laboratory if adequate controls are in place that are acceptable to the Water Undertaker. For example, a Domestic Dish Washing Machine may be installed if it is in a managed location (e.g. a staff room away from the Laboratory) and a Method Statement and Local Signage control its contents. Similarly a Domestic Clothes Washing Machine may be installed if the contents are restricted so that the Water Undertaker considers that it represents no greater Risk than at a Single Family Dwelling.

For more guidance on Domestic Machines at Non-Domestic Premises see SD-0001 and SD-0009.

### Control

Laboratory Equipment Washing Machines at Non-Domestic Premises will incorporate or be fed via:

1. A type AA air gap (Air gap with unrestricted discharge) or
2. A type AB air gap (Air gap with weir overflow) or
3. A type AD air gap (Air gap with injector) or
4. A no less effective device acceptable to the Water Undertaker.

### Instruments

| Water Regulations | X |
| Approved CoP      | X |
| Other             |   |

### Consolidation Date

04/01/2013