

DOCUMENT AUTHORISATION

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Client: Xxxxxxx Council

Site: Wyevale Court, xxxxxxxx xxxxx, xxxxxxxx
XXXXXXXXXXXXXXXX xxxx xxx

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This document has been abridged and is for illustrative purposes only.

This document has been produced and checked in accordance with the requirements of the Envex Company Limited Quality Management System and is duly authorised for issue.

Position/Discipline	Name	Signed	Date
Director	Mr A A Auch		12 November 2005

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EXECUTIVE SUMMARY

(Extracts for illustrative purposes)

- The Council gains significant benefits in drawing their water whenever possible directly from the mains.
- The risk rating has been determined as high. The reason is because of the cold water temperatures from the cold water outlets tested well in excess of 20° C
- There is a potentially susceptible population in a sheltered environment.
- Records show chlorination was undertaken on 1 February 2005 and the results certified the system.
- Records show tanks were cleaned on or around the 16 March 2005.
- Water delivery from showers appears to be acceptable.
- It is a requirement under HSC ACOP L8 that the pressure vessels are cleaned out.
- In all locations Type 2 TMV's must be installed because of the susceptible population (elderly) and the council's legal obligations as a residential care provider.
- Cold water temperatures at 5 outlets exceeded 20°C. It is recommended that existing TMV's are replaced with new Type 2 TMV's of a quality that is compatible with the workings of the relatively newly installed water system.
- Several flats were empty. There is a requirement at little used outlets eg. where flats are empty (no occupancy) for a length of time, and particularly during warm weather to have procedures in place for re-commissioning a vacant flat for occupancy.
- Training of staff on the subject of legionella and their duties should be considered. This can be undertaken through a "Legionella Awareness Course".

1. INTRODUCTION

2. BRIEF, SCOPE AND LIMITATIONS

3. THE CAUSES AND TRANSMISSION OF LEGIONELLOSIS

4. RESPONSIBILITIES FOR WATER RELATED SYSTEMS

Within the *Approved Code of Practice*, paragraph 39 states *if the assessment shows that there is a reasonably foreseeable risk and it is reasonably practicable to prevent exposure or control the risk from exposure, the person on whom the statutory duty falls should appoint a person or persons to take managerial responsibility and to provide supervision for the implementation of precautions.*

In the existing system operated by xxxxxxxxxx Council, *the person on whom the statutory duty falls* is considered to be the manager of all the properties, with the person appointed to *take managerial responsibility and to provide supervision for the implementation of precautions* being his deputy. This and further information is shown in the table below.

Person on whom the statutory duty falls –	Chief Executive of xxxxxxxxxx Council
Person responsible for implementing and monitoring a Legionella control regime - Property and Facilities Manager	Mr William xxxxx-xxxxxxxxxx
Person Responsible for producing and reviewing the Risk Assessment.	Mr Thomas xxxxxxxxxx
Council Site Representative.	Mr Martin xxxxxxx
Person(s) Appointed to take managerial responsibility and to provide supervision for the implementation of precautions	Mrs Margaret xxxxxx John xxxxx
Site representative	Keith xxxxxxxx
Legionellosis Control Consultants	Envex Company Limited

5. EXISTING MONITORING/MAINTENANCE

6. ASSESSMENT OF NEEDS AND MONITORING/MAINTENANCE REQUIREMENTS - THE WRITTEN SCHEME

- 7.1 Maintenance Tasks
- 7.2 Recommendations for maintenance record keeping
- 7.3 Management and the selection, training and competence of personnel
- 7.4 Maintenance Intervals
- 7.5 Maintenance Record Keeping

8. RISK ASSESSMENTS, RECOMMENDATIONS/REMEDIAL ACTIONS FOR MANAGEMENT, CONTROL OF RISK AND ESTIMATE OF COST

These assessments are provided as a requirement for compliance with the *Approved Code of Practice L8 – Legionnaires’ disease: The control of legionella bacteria in water systems*.

The ACOP applies to the risk of legionellosis in circumstances where the *Health and Safety at Work etc Act 1974* applies and gives practical guidance on the requirements of the *Health and Safety at Work etc Act 1974* and the *Control of Substances Hazardous to Health 1988 (as amended)* with regard to the risk of legionellosis.

Address of building/site:	Wyevale Court
Building description(s): (attach schedule if necessary)	Accommodation and community centre Sheltered accommodation
Property Manager: Tel no.	Mike xxxxxxxx 01xxxx xxxxxxxxxx
Responsible person: Title: Tel no:	William xxxxx-xxxxxx Facilities Manager 01xxxx xxxxxxxxxx
Dates(s) of survey:	12 November 2005
Survey carried out by:	G Hughes
Report checked by: Title:	Adrian White Consultant
Date risk assessment and survey should be reviewed:	November 2007 NB An earlier re assessment may be required if either the building, water systems or tasks carried out therein change significantly



Disabled toilet on ground floor
Note the Type 3 TMV which does not function properly



Hot water storage,
Ground floor with single storey above. Modern installation conforming to Water Regulations

< pressure vessel

Recommendations with estimate of cost

- The cold water in the communal disabled toilets (see picture) fed from a Type 3 TMV was again recorded 32.4°C. This was probably caused by a faulty mixing valve.
- In four other locations the temperatures exceeded 20°C, some by a factor in excess of 20%.
- **Plumbing comment (rather than a legionella comment)**, the introduction of a new pressurised system has changed the operational parameters of the system. Hot water is percolating past the non-return valve and increase the temperature of the cold water supply.
- It is recommended that all TMV's are replaced at all locations with Type 2 TMV's compatible with the systems operation. **Estimated cost £xxxx**
- Introduce a regime of cleaning out the pressure vessels. **Estimated cost £xxxx**
- Ensure that a programme is put in place to re-commission flats that have been left unoccupied. Weekly flushing through of vacated flats is recommended as stated in HSC ACOP L8 Checklist 2 (p52).
- Install new TMVs to conform to local authority regulations. **Estimated cost £xxxx**

Fire Suppression

The fire suppression to the site is mainly provided by fire extinguishers, or in an emergency, by the local fire brigade.

Any aerosols that are generated whilst carrying out fire fighting operations may contain bacteria some of which may be legionella.

All non-essential personnel must be kept clear of any aerosols that are generated.

RISK EVALUATION C3 - DOMESTIC WATER SYSTEMS

Hot and Cold water services including showers etc.

System Ref	Wyevale Court	Building Ref	Accommodation, community centre & sheltered accommodation	Date Surveyed	12 – 11 - 05
Evaluation By	GH	Position	Risk Assessor	Company	Envex

RISK FACTOR	Yes/No/ Possibly
An outbreak or case of legionellosis has been identified as having been caused by inhalation of water from the system	No
History of legionella being found in the system	No
Temperatures measured between 20 °C and 50 °C (unless supplementary water treatment regime in operation, eg ionisation or chlorine dioxide)	Yes
Showers present	Yes
Thermostatic mixing valves supplying long pipe runs or multiple outlets	No
Hot water supplied from storage calorifier(s) (risk increases above 300 litres)	Yes
Cold water supplied from cold water storage tank(s)	Yes
Susceptible people using services, eg hospital, nursing home or accessible to the general public	Yes
Disabled toilets with dedicated wash basins present	Yes
Low turnover of water, excessive storage, vacant areas and little used outlets	Yes
Complex system(s)	Yes
Old system(s)	No
Cold water tank(s) in poor condition	No
Signs of poor water quality in calorifier or inspection find internal surfaces in poor condition	No
It appears that materials which support microbial growth are in contact with the water	No
Records indicate that total viable counts (TVC) regularly recorded at 10 ³ cfu/ml or above	No
Outlets create considerable aerosol - high water pressure, spray taps	No
Mix of copper and steel in contact with water	No
Multiple connected cold water tanks	No
System has history of little or no maintenance	No
No access to internal surfaces of calorifier(s)	Yes
No continuous circulation of hot water and/or dead legs longer than recommended in BS 6700 (typically max 12m to outlets).	No
Water tanks having openings large enough for insects, animals or detritus to pass through	No
Water softener in line (refer to C4)	No
Analysis of the above risk factors indicates that the system surveyed presents a high/medium/low risk of legionellosis	HIGH

CHECKLIST E5 - COLD WATER STORAGE TANKS
CHECKLIST E6 - CALORIFIER DETAILS
CHECKLIST E9 - DETAILS OF SHOWERS

SUMMARY OUTLET SURVEY:
 DATE OF SURVEY: 12 - 11 - 2005
 TIME OF SURVEY: 11.00am

LOCATION	SINK	BATH	SHOWER	DRINK	WC	UR	HOT C	COLD C
Disabled toilet	1	0	0	0	1	0	41.0	32.4
Flat 1	2	0	1	0	1	0	41.8	16.4
Flat 2	2	0	1	0	1	0	41.2	14.4
Utility room	1	0	0	0	0	0	52.1	14.3
Flat 3	2	0	1	0	1	0	41.8	14.5
Flat 4	2	0	1	0	1	0	40.4	14.1
Flat 5	2	0	1	0	1	0	42.9	28.2
Disabled bathroom	1	0	1	0	0	0	40.6	20.7
Wardens flat	2	1	1	0	1	0	58.9	16.8
Kitchen sink	2	0	0	0	0	0	60.1	18.0
Kitchen washbowl	1	0	0	0	0	0	40.9	15.3
Flat 6	2	0	1	0	1	0	43.5	15.9
Laundrette	1	0	0	0	0	0	58.8	15.2
Flat 7	2	0	1	0	1	0	40.6	17.9
Flat 8	2	0	1	0	1	0	42.0	17.0
Flat 9	2	0	1	0	1	0	42.1	32.1
Flat 10	2	0	1	0	1	0	43.8	31.2
Flat 11	2	0	1	0	1	0	41.8	15.9
Flat 12	2	0	1	0	1	0	38.5	17.1
Flat 13	2	0	1	0	1	0	43.9	29.0
Flat 14	2	0	1	0	1	0	42.2	15.9
Flat 15	2	0	1	0	1	0	40.7	14.8
Flat 16	2	0	1	0	1	0	40.9	15.2
Flat 17	2	0	1	0	1	0	43.4	28.8

Wyevale Court – Flats 1 - 6

(This is an example and part of an extensive schematic)

