General Programme management

Ref.	Question	Comments	
1. Progra	1. Programme management		
1.1	Is there a responsible person agreed for every water system nominated in writing?		
1.2	Is there an appointed deputy?		
1.3	Are the duties of all persons involved clearly defined and communicated?		
1.4	Are all persons involved adequately trained?		
1.5	Are the responsibilities of the occupier and contractor(s) clearly defined?		
1.6	Has it been ensured that the contractors are adequately trained and competent?		
1.7	Have the other relevant health and safety issues - COSHH assessments for chemicals, safe access etc. been addressed?		

Cooling Towers

1. Physical Condition and design		
1.1	Are the drift eliminators suitable, in good condition and effective?	
1.2	Is the system water in good condition?	
1.3	Is the sump free from sediment?	
1.4	Are all visible surfaces free from slime or algae?	
1.5	Are all visible surfaces free from scale deposits?	
1.6	Are all visible surfaces free from corrosion?	
1.7	Is the water flow even across the whole of the tower fill?	
1.8	Have all the dead legs or poor flow areas been eliminated?	
1.9	Has all redundant plant been isolated from the system?	
1.1	Are all pipe runs as short and direct as possible?	
1.11	Is the tower constructed of impervious materials?	
1.12	If constructed of wood, is this in good condition?	
2. Risk Assessment (General)		
2.1	Has the existence of the cooling tower/evaporative condenser been notified to the local authority?	
2.2	Is there a written risk assessment for the system?	
2.3	Does it contain an up to date schematic plan of the system?	
2.4	Does it contain details of the precautions to be taken?	

2.5	Does it contain instructions for the operation of the system?		
2.6	Does the assessment conclude that the risk?		
2.7	Does the assessment consider the tower's physical condition?		
2.8	Does it consider the tower's positioning?		
2.9	Does it consider the population density near the premises?		
2.1	Does it consider any 'at risk' groups of persons?		
2.11	Has elimination or replacement with a lower risk system been properly considered?		
3. Schemati	ic Diagram		
3.1	Does it show all system control valves?		
3.2	Does it show standby plant (spare pumps etc)?		
3.3	Does it show any associated storage tanks?		
3.4	Does it show system bleed valve?		
3.5	Does it show chemical dosing pumps and injection points?		
3.6	Does it show system drain valve?		
3.7	Does it show the origin of the water supply?		
4. Cleaning and Disinfection			
4.1	Is there a written cleaning and disinfection procedure?		
4.2	Is it carried out at least every six months?		
4.3	Does it specify chlorine level at start of pre-clean chlorination?		
4.4	Does it specify contact/circulation time?		
4.5	Does it specify chlorine level at end of pre-clean chlorination?		
4.6	Does it give the method for cleaning all accessible parts?		
4.7	Does it specify chlorine levels at start of post-clean chlorination?		
4.8	Does it specify contact/circulation time?		
4.9	Does it specify chlorine level at end of post-clean chlorination?		
4.1	Is the removal of the tower fill/pack for cleaning and disinfection specified in the assessment?		
4.11	Are they removed for cleaning and disinfection in practice?		
4.12	Are there suitable health and safety procedures for carrying out cleaning and disinfection?		
5. Ongoing	5. Ongoing Water Treatment		
5.1	Is a water treatment programme in place?		
5.2	Does it use chemicals to control scale?		

5.3	Does it use chemicals to control corrosion?		
5.4	Does it use chemicals to control bacterial and algae (biocides)?		
5.5	Are alternating biocides used?		
5.6	Are the chemicals automatically dosed?		
5.7	Is there an automatic bleed to control dissolved solids?		
6. Ongoing	6. Ongoing Safe Operation		
6.1	Are there procedures for circulation of all parts once per week?		
6.2	Is there a shutdown of the installation at least once per year? How long does it last?		
6.3	Are there procedures for start up after shutdowns?		
6.4	Instructions for draining during long shutdowns?		
6.5	Instructions regarding valve settings for normal operation?		
6.6	Procedures for switching duty/standby pumps.		
7. Monitorir	7. Monitoring and Record Keeping		
7.1	Daily check to ensure conformance with operating procedures?		
7.2	Daily visual check made on the cleanliness of the system water?		
7.3	Chemical water quality checks carried out at least monthly?		
7.4	System physical condition checks carried out at least weekly?		
7.5	Dip slide tests taken at least weekly?		
7.6	Are Legionella tests carried out every quarter?		
7.7	Records of all tests undertaken maintained?		
7.8	Recommendations for remedial action recorded?		
7.9	Completion of remedial action recorded?		

Hot and Cold water systems

Ref.	Question	Comments
1. Physical Condition and Design		
1.1	Is the cold water storage tank adequately lagged?	
1.2	Is the cold water storage tank adequately covered, insect screened and reasonably clean?	
1.3	Is the hot water storage tank/calorifier adequately lagged?	
1.4	Are there any materials that do not comply with the water fittings regulations?	
1.5	Does the Cold Water tank hold more than can be used in 24 hours?	

1.6	Is the stored cold water temperature above 20°C?	
1.7	Is the stored hot water temperature below 60°C?	
1.8	Is the cold water temperature at the furthest draw-off point above 20°C?	
1.9	Is the hot water temperature at the furthest draw-off point below 50°C?	
1.1	Are there any dead ends?	
1.11	Are there any little used outlets (for example outhouses etc.)?	
1.12	Are showers fed from storage tanks (as opposed to electric)?	
1.13	Are there systems other than showers that can generate aerosols?	
2. Risk assessment		
2.1	Is there a written risk assessment for the system?	
2.2	Does it contain an up to date schematic plan of the system?	
2.3	Does it contain details of the precautions to be taken?	
2.4	Does it contain instructions for the operation of the system?	
2.5	Does the assessment conclude that there is a significant risk?	
2.6	Does the assessment consider the physical condition of tanks, calorifiers and pipework?	
2.7	Has elimination or replacement with a lower risk system been properly considered?	
3. Inspec	tion and Maintenance	
3.1	Are the temperatures of hot water calorifiers regularly monitored?	
3.2	Are Cold water tank temperatures regularly monitored?	
3.3	Are tap outlet temperatures regularly monitored?	
3.4	Is the physical condition of Calorifiers and Water tanks regularly checked, cleaned and disinfected as necessary?	
3.5	Are Shower heads regularly de-scaled?	
3.6	Are little used outlets flushed through regularly?	