Specification for radiation facility CCTV system - Component supply only

PHE, CRCE, Radiation Metrology Group

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# Introduction

## The Project

This is a project to replace the existing analogue Closed Circuit Television (CCTV) systems within the Radiation Metrology Group’s radiation facilities with a modern robust digital Internet Protocol (IP) system.

# The Requirement

## Overview

The requirement is for the **SUPPLY ONLY** of Closed Circuit Television (CCTV) system components. There is no hardware installation requirement.

There is **no requirement** to supply HD display monitorsas these will be provided by PHE.

There is **no requirement** to supply or install cabling (Cat5e, HDMI splitter/extenders and USB extenders) as this will be performed by a separate contractor and/or PHE.

There are four laboratory rooms. For resilience, each laboratory room must have its own independent dedicated High Definition video system. Any failure of a CCTV system in one laboratory room must not impact on any of the other CCTV systems in the other laboratory rooms.

Each laboratory room has an associated control/viewing position in an adjacent room. The control software and any required HD images from the associated laboratories cameras must be viewable simultaneously on a HD display monitor within the laboratory room (local), to aid frequent adjustments to the physical camera position and settings, and also on a HD display monitor at that laboratories associated control position (remote) in the adjacent room. Any required controls, such as keyboard and mouse, must also be duplicated at both (local and remote) locations and all work simultaneously without requiring any changeover device.

Each laboratory room requires at least two colour cameras providing an overall room view and at least one colour camera mounted on an existing track-based mobile trolley providing a detailed view of small analogue or digital displays on various instrument types under test.

For resilience, a single specification of camera (and lens) is required to enable simple switching out of any camera (and lens) to any room position should a camera fail.

**A diagram of the required system configuration for a single laboratory room can be found in Section 4. A total of four such systems are required: one for each room.**

## Supply of the ‘Appliances’

The current cost must be provided for a total of five ‘Appliances’: one for each of the four laboratory rooms and one spare.

The current cost must also be provided for a single additional ‘appliance’ as more may be required at a later date.

## Supply of the ‘Colour CCTV cameras’

The current cost must be provided for a total of 16 cameras: a set of four for each of the four laboratory rooms.

The current cost must also be provided for a single additional camera as more may be required at a later date.

## Supply and Installation of Cabling

There is no requirement to supply or install any cabling. All cabling to the existing mobile trolleys or via existing conduits will be provided and installed by the manufacturer of the trolleys. This is critical as to not invalidate any warranties in place and to insure that any electrical interference with existing cabling and systems is prevented.

There is no requirement to supply or install additional cabling (Cat5e, HDMI splitter/extenders and USB extenders) as this will be performed by a separate contractor and/or PHE.

## Service Support Plan

All parts should be provided with a manufacturer’s warranty.

Details to be provided of service support plan (this may include telephone support and on-site repair or replacement of failed equipment).

## Training Documentation

Training documentation such as user manuals, etc. should be provided either in electronic or hardcopy format.

# Timescales

## Delivery Timescale

All hardware and software must be delivered to the CRCE Chilton site **in good time to enable payment during, or ideally before the beginning of April 2016.**

# Configuration Diagram

The configuration diagram on the following page shows the required CCTV system for just one of the laboratory rooms. A total of four identical systems are required: one for each laboratory room.

Each of the four systems should be fully independent and not be connected together.

**Laboratory Room (1 of 4)**

HDMI

IP Camera 1

*Provision for IP Camera 6*

*Provision for IP Camera 5*

IP Camera 4

IP Camera 3

IP Camera 2

HDMI Splitter/ Sender

Compact wall-mountable all-in-one standalone ‘Appliance’   
  
(as described in Section 2.2)

USB Extenders and/or hub

**Control Room (1 of 4)**

Portable Storage

Drive

USB/eSATA

USB

CAT 5e

USB

USB

Keyboard 1

Mouse 1

HDMI

HD Monitor 1

(Showing an identical image to HD Monitor 2)

CAT 5e

CAT 5e

CAT 5e

CAT 5e

CAT 5e

CAT 5e

USB

USB

HDMI

HD Monitor 2  
  
(Showing an identical image to HD Monitor 1)

Keyboard 2

Mouse 2

HDMI Receiver