

## Port Hope Treatment Plant - Portal Equipment Electrical Requirements

Q1- The total number and (power and data connection) type of cables as well as conduit sizes required by the portal monitors to the Control box located in the scale house?

A- I have added the power and component details in question 2. Below is a list of the required cables along with the conduit sizes. All conduit should be metal to provide additional protection from lightning and EM noise. The Controller cable was supplied with the Radiation portal systems systems.

Controller 1 inside scale house to system 1 Side <b>A</b>	1" conduit	Cerco Ltd. 7237-10, 4/PR 22/7STC
Controller 1 inside scale house to system 1 Side <b>B</b>	1" conduit	Cerco Ltd. 7237-10, 4/PR 22/7STC

Controller 2 inside scale house to system 2 Side <b>A</b>	1" conduit	Cerco Ltd. 7237-10, 4/PR 22/7STC
Controller 2 inside scale house to system 2 Side <b>B</b>	1" conduit	Cerco Ltd. 7237-10, 4/PR 22/7STC

Camera 1 - From scale house network to camera 1	1" conduit	CAT6 Ethernet cable
Camera 2 - Fromscale house network to camera 2	1" conduit	CAT6 Ethernet cable

TLC 1 - from Controller 1 inside scal house to TLC 1	1" conduit	Outdoor cable that can support 120V
TLC 2 - from Controller 1 inside scal house to TLC 2	1" conduit	Outdoor cable that can support 120V (Electrician Specifications)

**Please see attached document - AECL Portal System Required Conduits**

Q2- The power requirement for the control boxes ( a 120V AC connection) , can you please confirm the amperage rating required for it as well?

A- All components inside the scale house will require 120VAC. Components MAX power consupnsion below:

Controller 1	6A
Controller 2	6A
Printer 1	1.5A
Printer 2	1.5A
TLC 1	4.1A
TLC 2	4.1A

RUI	2.1A
DataCenter	2.1A
Monitor	3.5A
Suggested UPS	12A load Max

Q3- Can you please identify the requirements the interface between the portal monitors and the scales (number of communication cables and conduits sizes required in total)?

A- This condit may be part of the scale installaion. Radiation Solutions is planning to tap into the LAN and pull some information from the scale controller but that would all be done from inside the building. This