

1 **Q. Re Replace Programmable Logic Controllers, page B- 6**

2 At page B-7, under "Project Justification", it is asserted that "*A plant-wide*
3 *installation of a common system delivers tangible cost benefits as well as intangible*
4 *benefits to operations staff.*" In the "Conclusion" section at page 36 of the report
5 (Volume II, Tab 3) supporting this Project, reference is only made to the intangible
6 benefits of a plant-wide common platform. What are the tangible cost benefits
7 referred to in the "Project Justification" and can they be quantified and compared
8 with other alternatives to this Project?

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11 **A.** With a plant-wide common platform there is less training required for the
12 engineering and maintenance personnel as only one manufacturer's software and
13 hardware is being used. Engineering and maintenance personnel have to complete
14 the Foxboro Distributed Control System training as existing systems in the plant
15 such as boiler controls run on that system. If Programmable Logic Controllers were
16 used, new personnel hired to replace those retiring would need Programmable
17 Logic Controllers training in addition to the Foxboro training. In the cost benefit
18 study, the costs for training on the Programmable Logic Controllers hardware and
19 software were included as one person in 2013, two people in 2014 and one person
20 in 2022. The estimated 2009 net present value included in the cost benefit study for
21 this training is \$38,942.