Interactive comment on “Water Expert: a conceptualized framework for development of a rule-based decision support system for distribution system decontamination” by J. L. Gutenson et al.

Anonymous Referee #2

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The paper address a relevant aspect that utility companies face when facing water contamination events. The tool Water Expert seem to be a valuable tool. However, the authors fail to describe the tool in a more deep detail. A few comments about this paper are:

1) Expert system has been described as a form of AI but it will be interesting to explain more about the reason. More description of specific cases of expert system (how they have worked in the past, how they work and what successful cases will be ideal instead of just providing references)

2) Explains more about what has been done in expert system models.

3) Explain what is Kypipe for a non-North American audience.

4) how different is CANARI (The USEPA model from this one)? The author has not mentioned anything about this tool which will be an important review to do.

5) How Water Expert was designed to consider contaminant characteristics, distribution system characteristics, volume of affected water, extent of the contamination, and resources available for response? More importantly, Water Expert can provide the alternatives to work in case of a contaminant event but what if the water utility does not have enough capable workforce to do it? To what extent Water Expert consider this type of restrictions?

In terms of format. Fixing the following comments will make the read of this document more smooth. 1) Some sentences look too long which makes the read proofing tedious. For example sentence 10. 2) Authors mention a lot of names with abbreviations, but again for a non North-American audience is not adequate. 3) Author mention many references but does not describe some of the most important uses in Water System. For example, what specifically is Drupal 6?