

Advanced Water Treatment (AWT) Operator certification Request For Proposal on Examination Development Consulting Questions and Answers

California-Nevada Section of the American Water Works Association (CA-NV AWWA) together with the California Water Environment Association (CWEA) offer the following answers (in blue font) to the following questions that were submitted by prospective bidders (in black font).

In the tables in Appendix I,

The updated Job Analysis report contains 2 additional pages that provide the key to the report table in Appendix I.

What do the Frequency ratings D, M, Y stand for?

What are the numbers under Application?

How were the Risks Minor, Moderate, Major and Critical defined for subject matter experts (SMEs)?

What formula was used to translate the AWT Grade X table data into the Appendix J Blueprint, and into the Revised Knowledge Statement tables in Appendix K?

No formula was available from our consultant, PSI, as the consultant that produced the report is no longer part of PSI.

1) You only want a single test form?

Yes, a single test form for each of the three grades (AWT Operator Grade 3, 4 & 5).

We anticipate using computer-based delivery and therefore, the order of the items as well as the key / distractors may be rearranged to address exposure concerns.

2) The RFP say Multiple Choice Questions. Is this restrictive in any way? Does it exclude matching, multiple select and drag and drop type items? What about graphics?

Existing certification examinations from both associations are typically multiple choice, single answer; we envision staying with this format, at this time.

Bidder responses offering other item formats will be considered for effectiveness and cost (graphics, video clips and such).

1. Our understanding is that you are requesting the development of 3 separate exams (AWT Operator Grade 3; AWT Operator Grade 4; and AWT Operator Grade 5). Please confirm that this is the case or if you are seeking 1 test that covers Grades 3-5.

Yes, a separate examination form for each of the grade levels is required (AWT Operator Grade 3, 4 & 5).

2. How does CA-NV AWWA and CWEA intend to use the SME Extraction Document?

The SME extraction document will be used by item writers, item reviewers and in a polished version for applicants / employers as examination preparation material (likely posted on a web site).

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The opportunity to permit SMEs to participate through interviews versus writing the items themselves may offer options for them to partake in education development and delivery.

3. If a provider chooses Option #2 for item-writing, is there another milestone deliverable that CA-AWWA/CWEA would expect in place of the SME Extraction Document? Or is this document still expected regardless of the Option selected?

Option Two will rely less on interviews with SMEs; rather SMEs will initially draft the items and the successful consultant will review, fine tune and perhaps iteratively revise the items with SME input. Therefore, the process in Option #2 may mean less interaction and collaboration between the SMEs and the selected consultant, so the opportunity to create an Extraction Document would be diminished...but not without value. Providers that do choose Option #2 are encouraged to include an Extraction Document in their proposal.

4. Can you please explain the factors attributed to the preference of Option #1 as the method of item-writing?

One driver for preferring Option One is the desire to develop high quality items. Professional item writers are expected to bring years of experience creating the items that are psychometrically well-designed. SME and published materials are available to assure industry-specific content is properly represented.

A second-driver is the desire to use a scarce population of SMEs for both examination and education efforts. Limiting SME exposure to the exact item content may permit them to participate in the development and the delivery of needed education to the same target population of AWT operators.

5. Is CA-NV AWWA/CWEA interested in pursuing accreditation for these exams through an accrediting body such as ANSI or ISO?

There are no present expectations of pursuing accreditation from the American National Standards Institute (ANSI/ISO/IEC 17024) or the National Commission for Certifying Agencies (NCCA). We do intend to proceed in an accreditation worthy manner to assure our option is open in this regard.

1. Do the CA-NV AWWA and CWEA maintain an item bank or banks with questions that can be included in the development of the new Advanced Water Treatment Operators Grades 3, 4 and 5 certification exams? Are statistics for previous exams and previously used items maintained and available?

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No existing items will be available as a starting point.

No previous examinations were offered addressing the specific tasks / knowledge statements identify through the job analysis process for the AWT Operator certification. Therefore, no statistics exist.

2. Is it the expectation that most or all exam content will be new for these exams in accordance with the recently completed Job Task Analysis (JTA)?

Yes, all examination content will be new for these examinations in accordance with the recently completed Job Task Analysis.

3. Is it the expectation that multiple forms will be developed for each of the Advanced Water Treatment Operators Grades 3, 4 and 5 certification exams--or just a single form for each exam?

A single test form for each of the three grades = AWT Operator Grade 3, 4 & 5

We anticipate using computer-based delivery and therefore, the order of the items as well as the key / distractors may be rearranged to address exposure concerns.

4. What standard setting methods have been used by the CA-NV AWWA and CWEA for determining cut scores? Is a beta test desired? Do the CA-NV AWWA and CWEA have a preferred approach?

CA-NV AWWA typically uses SME percentage input for each item (% of minimally competent examinee will get this answer correct = 60% or some other figure). A psychometrician reviews all the item bank evaluations of the limited number of SME reviews (typically 5-10 participants) and establishes a passing score.

5. How long have the current forms been in use? How often or frequently do the CA-NV AWWA and CWEA plan to refresh the new exams to be developed as part of the planned scope of work?

No previous examinations were offered addressing the specific tasks / knowledge statements identify through the job analysis process for the AWT Operator certification.

The successful consultant may guide our refresh rate considerations. Any proposed refresh activities and attending expenses may be presented as a separate phase of work from the initial examination development.

6. Please describe previous recruitment of SME item writers/reviewers for CA-NV AWWA and CWEA examinations. Are volunteers easily engaged?

CA-NV AWWA and CWEA will recruit the SME participation. The selected consultant may arrange for the interactions with the SMEs (interviews, item writing training, and etcetera).

Our SMEs are easily engaged ... within the limits of very busy people.

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7. Please describe the current or previous approach to item writing. Has it been the practice to do item writing and review as part of an in-person meeting or meetings? Have the CA-NV AWWA and CWEA done item writing or review using online meeting software (e.g., GoToMeeting, WebEx, Zoom)? Has any remote item-writing been done as part of this work, whereby trained SMEs completed item writing assignments independently over the course of several weeks?

CA-NV AWWA past item writing followed the process of train the SME, review by psychometrician, finalize items and form(s) with oversight by CA-NV AWWA staff and select SMEs for the final cut score process (as defined above).

Conference tools including online meeting software may be utilized with attention to the security of the discussions.

Remote item writing processes where SMEs independently develop items and submit them for review by psychometricians is considered a viable approach. Availability of SMEs for either interviews or direct item writing activities may make this approach attractive.