Outline of Technical Reports Based on Revised NCCA Standards

Designing	Conferring
Developing	Accrediting
Implementing	Maintaining

Functional Manager	PMO
Component	Candidate

PREFACE: *The NCCA standards were recently revised and will be released in January 2016.*

PURPOSE: *The purpose of this job aid is to provide detail and guidance for responding to the 2016 NCCA standards. This job aid is targeted for individuals supporting certification development functions and/or the application process for NCCA accreditation.*

PROCEDURE:

LIST OF REPORTS ALIGNED TO REVISED NCCA STANDARDS

1. SME UTILIZATION REPORT - SUR (Standard 13: Panel Composition): The revised standards document "requires" more granular information about the SMEs and SME utilization. As such, GSX suggests that there be a separate report that focuses solely on required SME information. The proposed structure for the SUR includes:
   a. An Introduction section that describes the purpose of the report and its relationship to other reports.
   b. A Process Map section that presents a table (with relevant supporting language) that: (1) depicts each step of the four major phases of the criterion-referenced test development process (i.e., Job Analysis, Assessment Specification, Test Construction, Cut-Score Setting) in the rows of the table; and (2) rationale for SME participation and general description of SME recruitment/selection process used for each step in the columns of the table.
   c. A SME Utilization section that presents a table similar to the process map (in terms of rows), but the columns will address: (1) SME roles and responsibilities, (2) instructions and/or training provided to SMEs, (3) eligibility criteria used to evaluate appropriateness of SMEs, and (4) demographic information associated with participating groups of SMEs, and (5) general description of SME decisions and recommendations.
   d. An Enclosure section that provides (for example): (1) sample SME Demographic Worksheet, (2) Lists of SMEs (first name, last name initial) and critical demographic information – years of experience, types of experience, certifications, organization, and (3) description of SME recruitment/selection process.

2. JOB ANALYSIS REPORT – JAR (Standard 14: Job Analysis): The revised standards document "requires" more granular information about the job analytic approach the program uses. In particular, there is an emphasis on the use of a survey instrument to validate identified domains and tasks that characterize proficient performance. As such, GSX suggests the proposed structure for the JAR

a. An <u>Introduction</u> section that describes the skill standards development with special emphasis on: (1) how the stages of the skill standards development are aligned with sound psychometric practice, and (2) rationale for methods used in the three stages (i.e., develop content, verify content with SMEs, and organizational validation of codified content) of skill standards development process. This section must include a detailed description of how the Department conducts its business (i.e., how policies and doctrines guide execution of capabilities; how components may differ in specific procedures for executing those capabilities; and their implications on personnel requirements), and how these factors influence the definition of "representatives" (in terms of "participants") and the choice of methods. It also must include information regarding the date range of the study, and a specified date for next review of the skill standards.

b. A <u>Content Development</u> section that describes: (1) methods used to delineate domains and tasks (i.e., Thought Leader Interviews, Legacy Document Review), (2) rationale underlying the use of these methods, (3) description of the execution of these methods (with appropriate referencing to the SUR), and (4) results of the execution of these methods (with special emphasis on criteria used in the execution of the methods and quantifiable results).

c. A <u>Content Review</u> section that describes: (1) method used to review domains and tasks (i.e., iterative SME focus groups), (2) rationale underlying the use of these method, (3) description of the execution of this method (with appropriate referencing to the SUR), and (4) results of the execution of this method (with special emphasis on criteria used in the execution of the method and quantifiable results).

d. A <u>Content Validation</u> section that describes: (1) method used to validate domains and tasks (i.e., Organizational Review), (2) rationale underlying the use of this method, (3) description of the execution of these methods (with appropriate referencing to the SUR), and results of the execution of this method (with special emphasis on criteria used in the execution of the methods and quantifiable results). For "specialty certifications", a survey should be used to collect information from SMEs (taking into account vision for the certification and organizational factors) regarding the importance of the identified domains (this step would reflect an expansion of the current data collection protocols used to establish the "relative criticality index" for each identified domain). For "core certifications," the survey requirement can be fulfilled as part of the blueprint development process, and reported as part of the Examination Specification Report.

e. A <u>Content Quality Assurance</u> section that describes, in greater detail, skill standards refresh procedures.

f. An <u>Enclosure</u> section that: (1) identifies psychometric consultants used to conduct the job analysis study, and (2) a copy of the survey, when appropriate.

3. EXAMINATION SPECIFICATION REPORT – ESR (Standard 15: Examination Specifications): We currently use Appendix Q to fulfill this requirement. However, the revised standards document "requires" more granular information. In particular, there is an emphasis on, not only the development and validation of the examination specification, but also how the examination specification drives the assessment design process. As such, GSX suggests the proposed structure for the ESR:

a. An <u>Introduction</u> section that describes: (1) the target population, (2) the objective of the examination (including what the examination is intended to measure – cognitive knowledge, psychomotor skills, and/or general competency), (3) the level of practice (e.g., entry,

advanced, specialty) being measured, (4) a listing of essential design considerations (e.g., method for scoring responses, method for establishing passing standard, method for assessing the accuracy of the scores) with appropriate references to relevant reports.

b. The Certification Blueprint section that describes: (1) process and procedures for deriving blueprint content based on the job-analysis results (for "core certifications," this step would entail conducting a survey specifying importance of domains specified in the skill standards with respect to identified level of practice, and is part of the weighting process and procedures), (2) process and procedures for developing, verifying, and validating blueprint content, and (3) process and procedures for deriving weights associated with blueprint content.

c. A Certification Scheme section that describes how the blueprint drives decisions with respect to all certification scheme elements (i.e., pre-requisites, certification requirements, and certification maintenance requirements).

d. A Design Consideration section that describes how the blueprint drives assessment design. This sections should include information such as: (1) description and rational for item types used to assess blueprint content, (2) process and procedures for the assembly of the examination based on the blueprint content (content validation) and weighting, (3) examination administration requirements, and (4) a general description of the plan for scoring the examination and for conducting psychometric analysis. This section should also describe, when necessary, process and procedures for equating different forms of the assessment.

e. A Blueprint Quality Assurance section that describes, in greater detail, the blueprint refresh procedures.

f. An Enclosure section that presents: (1) a copy of the certification blueprint.

4. EXAMINATION DEVELOPMENT REPORT – EDR (Standard 16: Examination Development): The revised standards document "requires" more granular information regarding the use of empirical data to make judgments and decisions regarding the items. As such, GSX suggests the proposed structure for the EDR:

a. An Introduction section that reiterates how the Department conducts its business - how policies and doctrines guide execution of capabilities and the implications of this fact on the item writing process (i.e., how this allows psychometric consultants with training and experience in developing items to generate seed items).

b. An Examination Development Process section that describes the exam development process (Alpha → Beta → Production) and the rationale underlying methods used at each stage. This section should also include a description of the: (1) information (e.g., accuracy, currency, and relevance of items to certification objectives specified in the blueprint) collected from SMEs (as part of the Alpha-to-Beta transition) and how that information is used to make judgments and decisions regarding which alpha items should be included in the Beta), and (2) information used (i.e., psychometric data) to make judgments and decisions regarding which Beta items should be included in the production version of the assessment. This section should also include a description of the training provided to SMEs for each of the two transition stages.

c. An Alpha-to-Beta section that presents quantitative data about alpha items and decisions made (include, delete, revise) by SMEs (and how they conform to pre-defined criteria). For the most part, this should be presented as a table with appropriate supporting language.

d. A <u>Beta-to-Production</u> section that presents quantitative data about beta items and decisions made (include, delete) to generate the production version of the test (and how they conform to pre-defined criteria). For the most part, this should be presented as a table with appropriate supporting language. It is critical to note, however, that because of the revised standards (in relation to the test development process and the cut-score setting process), the beta-to-production transition will need to be executed with assistance of SMEs.
A Item/Test Characteristics section that presents in table form (with supporting language): (1) number of items in production version, (2) proposed test time, (3) aggregate item level statistics, (4) descriptive test statistics, and (5) reliability information specified in Standard 20 of revised standards document.

e. An Item/Test Quality Assurance section that describes, in greater detail, the procedures for monitoring and refreshing items/test.

5. STANDARD SETTING REPORT – SSR (Standard 17: Standard Setting): The revised standards document "requires" additional steps in the standard setting process. In particular, there is an emphasis on the use of empirical data derived from the piloting of the beta items to "inform" the standard setting process. As such, GSX suggests making adjustments to the cut-score development process (by collecting angoff judgment after the pilot study). The proposed structure for the SSR includes:

a. An Introduction section that describes the approach the program uses to set cut scores (including the leveraging of empirical data during the collection of angoff judgments).

b. The Provisional Cut-Score section that describes, in greater detail, the angoff process and the leveraging of empirical data to generate final angoff judgments (this process will, more than likely, require two groups of SMEs – going through 2-3 process iterations – and will coincide with activities described in item 4.d above). This section will need to present a table that lists (at the item level): (1) final angoff judgments without access to empirical data, (2) final angoff judgments with access to empirical data, and (3) consensus angoff judgments. Finally, this section will need to specify the recommended provisional cut-score.

c. The Operational Cut-Score section that describes the process the program uses to generate the operational cut-score (including how the CSEM is used to constrain potential adjustments to the provisional cut-score). This section will need to: (1) document stakeholder deliberations about the potential operational cut-score options, (2) specify the business rule(s) associated with setting the final operational cut-score, and (3) the final operational cut-score.