MINUTES OF THE

NORTH CAROLINA CODE OFFICIALS QUALIFICATION BOARD

April 22, 2014

The quarterly meeting of the NC Code Officials Qualification Board was held at 1:00 P.M. on Tuesday, April 22, 2014 at the Board's office at 322 Chapanoke Road in Raleigh, NC.

The following members of the NC Code Officials Qualification Board were present:

Hayden Lutterloh Brenda Lyerly
Taher Abu-Lebdeh Tracy McPherson

Dean Barbour Ray Rice
Richard Ducker Harry Schrum
Valoree Eikinas Ken Stafford
Charles Horne Stephen Terry
Allen Kelly Bill Thunberg

Members absent:

Susan Gentry

Helen DiPietro

Richard Blackburn Andy Matthews
Mark Hicks Sherrill Smith
Jerry Jones Chris Noles

Others in attendance were as follows:

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Mike Hejduk	Department of Insurance	Raleigh, NC
Kathy Williams	Department of Insurance	Raleigh, NC
Cliff Isaac	Department of Insurance	Raleigh, NC
Natalie Pollard	Department of Insurance	Raleigh, NC
Jennifer Hollyfield	Department of Insurance	Raleigh, NC
Terri Tart	Department of Insurance	Raleigh, NC
Barry Gupton	Department of Insurance	Raleigh, NC
Laurel Wright	Department of Insurance	Raleigh, NC
Robert Croom	Department of Justice	Raleigh, NC
Jo Anne Wingate	PSI	Burbank, CA
Nicole Tucker	PSI	Norfolk, VA
Russell Reeves	Johnston Co. Inspection Dept.	Smithfield, NC
Jim Nicholas & wife	Boiling Spring Lake Insp. Dept.	Boiling Spring Lake, NC
Jim Stipe	Swansboro Insp. Dept.	Swansboro, NC
Gary Holland	Camden County Insp. Dept.	Camden, NC
Dan Porter	Camden County Planning Director	Camden, NC
Samantha Ewens		Cary, NC
Janie Sutton		Clayton, NC

Raleigh, NC

Raleigh, NC

Preliminary Matters

Chairman Hayden Lutterloh presided over the meeting and welcomed guests.

Item 1a: Re-introduction of New Board Member

Chairman Lutterloh noted that Ms. Brenda Lyerly attended the January 28, 2014 meeting by phone but had not been sworn in. He re-introduced Lyerly as an appointed member of the Board. Lyerly is the Mayor of Banner Elk representing cities under 5,000 population.

Item 1b: Member Introduction & Requests for Conflicts of Interest

Chairman Lutterloh asked each member of the Board to introduce themselves and state whether they had actual or potential conflicts of interest for any items on the agenda. Mr. Ducker noted that he is retiring June 30, 2014 and will probably be at the July, 2014 meeting to introduce his replacement. Mr. Lutterloh asked the Board if there were any conflicts of interest that needed to be made known. Dr. Terry requested to be recused from voting on the complaint of Sutton vs. Noles because he instructed Ms. Sutton while she was a student at NCSU. Mr. Horne made a motion to recuse Dr. Terry on this vote. Mr. Thunberg seconded the motion. The motion was approved unanimously. Mr. Rice noted that he would like to be recused from voting on the complaint of Sutton vs. Noles as well due to his prior working relationship with Ms. Sutton at the NC Mechanical Inspectors Association. Mr. Thunberg made a motion to recuse Mr. Rice on this vote. Mr. Horne seconded the motion. The motion was approved unanimously.

Item 1c: Introduction of New Staff Member – OSFM

Chairman Lutterloh introduced Mr. Mike Hejduk, PE as the new Director of the NC Code Officials Qualification Board staff as well as the Director of the NC Home Inspector Licensure Board (NCHILB) and welcomed him.

Item 2: Approval of January 28, 2014 Minutes

Charlie Horne made a motion to approve the minutes of the January 28, 2014 Board meeting. Valoree Eikinas seconded the motion. The motion was approved unanimously.

Item 3: Approval of New Standard Certificate Holders

Charles Horne made a motion that the Board grant Standard Inspection Certificates to those applicants who have met the Board's education, experience, and examination requirements. The applicants are listed in Attachment A to the minutes. Stephen Terry seconded the motion. The motion was approved unanimously.

Item 4: Recognition of Fifth Level III Standard Inspection Certificate

Mr. Michael Allen Cook of the Johnston County Inspections Department received his fifth Level III certificate in the Electrical Trade today. He was unable to attend the meeting.

The current number of active Code Enforcement Officials (CEOs) who hold Level III certificates in all five (5) disciplines is 157. These individuals are listed in Attachment B to the minutes. The total number of code enforcement officials who have ever achieved this level of certification remains at 229.

Chairman Lutterloh welcomed three code enforcement officials who achieved their fifth Level III certificate at the January 28⁻ 2014 meeting but were unable to attend the meeting due to inclement weather. The Board congratulated Mr. James David Stipe of the Swansboro Inspection Department; Mr. James Nicholas of the Boiling

Spring Lakes Inspection Department; and Mr. William Russell Reeves of the Johnston County Inspection Department.

Item 5: Candidate Appeals

Chairman Lutterloh asked Kathy Williams to introduce a candidate for certificate appeal by Mr. Gary Holland and provided the following background information:

Holland is a CEO with the Camden County Inspection Department. Holland's Building II and Plumbing II probationary certificates, P-16991, expired on October 21, 2013. Holland conducted only one Building II and Plumbing II inspection during this time period within Camden County, but needs two to qualify for the state exam in each trade. Holland made an inspection under the supervision of a standard Building II and Plumbing II certificate holder in Perquimans County, but this inspection was conducted after the expiration of his probationary certificate and was not accepted by staff. Holland is appealing to the Board to provide a option where he can meet the two inspection requirement in the Board's Rules and take the Building II and Plumbing II state exams.

The Board discussed the appeal. Mr. Horne made a motion the Board approve Holland to take the Building II and Plumbing II exams provided Mr. Croom, Board Attorney, determines that the experience submitted is acceptable. Barbour seconded the motion. The motion was seconded by Mr. Barbour. The motion was approved unanimously.

Item 6: Committee Reports:

- Executive Committee: Chairman Lutterloh stated the committee had not met and had no report.
- Policies and Procedures Committee: Mr. Ducker reported the committee had not met and had no report.
- Education and Research Committee: Ms. McPherson gave a brief update on the online standard course pilot program. She reported that two Board approved standard course instructors were working with the NC Community College System to transition the current classroom standard courses to online delivery. The courses involved are: Fire I, Mechanical I, and Plumbing I. She noted that she hopes to have a product to show the Board at the July, 2014 meeting. She also noted that the Committee had not met to discuss the possibility of Law and Administration courses being accepted for continuing education credit. The Committee will move forward with this discussion.
- Qualification and Evaluation Committee: Mr. Thunberg reported the Committee has not met but referred the Board members to Item 6B of the minutes of the January 28, 2014 meeting regarding exam reviews. He reported that the Board may need to vote on this recommendation. Staff stated that this item will be addressed in a later portion of the meeting.

Item 7: Staff Reports

Director

Mike Hejduk introduced himself and announced the new staff section name as the Qualifications Assurance Section (QAS) as a result of a recent reorganization that combined existing OSFM staff support from the NC Home Inspector Licensure Board and Pyrotechnic Operators Licensing Program. Hejduk referred the Board members to the supplemental information in their notebooks, Attachment C, as he introduced staff present by

functional responsibility and years of experience: Certification/Licensing Section - Sarah van Doornewaard (resignation effective 4/30/2014) and Terri Tart NCHILB, 15 years; Examination Administration - Kathy Williams, NCCOQB, 27 years; Education - Natalie Pollard, NCCOQB 9 years and Jennifer Hollyfield, NCHILB 17 years; Investigations - Suzanne Taylor, NCCOQB 9 years; Cliff Isaac, NCCOQB 1 year (reassigned as Residential Code Consultant effective 4/30/2014), and Investigation Phil Joyner, NCHILB, 7 years.

Hejduk noted that existing Board letterhead was being updated to reflect Brenda Lyerly's appointment and himself as Director. Hejduk presented for the Board's consideration a new memo style stationary had been prepared and approved by the NCDOI Public Information Office. Hejduk explained the memo style would provide more page space and could be used by staff to facilitate less formal communications. Hejduk requested the Board's tacit approval of the new stationary. No objections were voiced by the Board members in attendance.

Hejduk reviewed the map of inspection departments including community college locations and how it can be a useful graphic representation of information currently residing in the database to aid understanding of program effectiveness.

Certification/Examination

Kathy Williams made the Certification/Examination report to the Board.

Williams reported that 80 probationary certificates expired during the previous quarter which will be reported to the City or County Manager. She referred to the Probationary Certificates section of the Staff Report, Attachment C, where all names were listed.

Williams reported on the standard certification testing for the period January 15, 2014 through April 8, 2014. The report provided the number taking, number passing, passing rate, and high and low scores for all exams by area and level.

Williams reported that staff had received three exam complaints during the past quarter.

Williams reported that she and Hejduk had a project kick-off meeting via teleconference with PSI staff on March 11, 2014 and meet bi-weekly at present. Staff has provided items needed to begin examination administration with PSI on July 1, 2014. Williams reported that staff is on track or ahead of the proposed timetable established to meet the July 1, 2014 deadline. PSI will begin scheduling exam registrations on June 16, 2014.

Williams reported that staff will be assuming the duty of exam development which was previously performed by ICC. There are enough questions to offer two distinct forms of each exam, but more exam question development is needed. Williams also reported that exam scores will no longer be scaled.

Education

Natalie Pollard made the Education report to the Board.

Pollard reported on the status and number of continuing education and standard courses for the period from January 15, 2014 through April 8, 2014. See Staff Report Attachment C.

Pollard reported that the Standard Code Course Instructor Workshop was held April 10, 2014 and five individuals were certified to teach the Board's standard courses. Pollard reported that an attorney was approved to teach the Law and Administration course which brings the total number to three across the state.

Pollard also reported that a Sponsor Workshop will be held April 24, 2014.

Investigations

Cliff Isaac made the Investigations report to the Board.

Isaac reported there are two complaint investigations that have begun but are not complete. These complaints are against George Lacey and Charles Taylor.

Isaac presented the investigation report for the complaints against Harris, Faucette, and Evans. No basis in fact was found against Haywood L. Faucette and S. Dale Evans. Mr. Horne made a motion to accept the staff's recommendation of no basis in fact against Mr. Haywood Faucette. Mr. Schrum seconded the motion. The motion was approved unanimously. Mr. Horne made a motion to accept the staff's recommendation of no basis in fact against Mr. S. Dale Evans. Mr. Schrum seconded the motion. The motion was approved unanimously.

Isaac reported that basis in fact was found against Arthur Lewis Harris. Isaac stated that Harris was willing to accept a Voluntary Consent Agreement and agreed to the following condition: Take a Building I standard course and pass within 6 months from the date of this Agreement. Mr. Thunberg made a motion to accept the staff's recommendation and the Voluntary Settlement Agreement as presented. Mr. Horne seconded the motion. The motion was approved unanimously.

Isaac stated that Mr. Barry Gupton, Chief Building Code Consultant, Engineering Division, NC Department of Insurance would present the results of the investigation report against Mr. Chris Noles.

Gupton presented the investigation report for the complaint against Mr. Noles.

Since Mr. Noles is an employee with the Engineering Division, the investigation was performed by an independent contractor. The independent contractor was Ms. Hazel T. Stephenson who previously conducted investigations and presented findings to the NC Manufactured Housing Board. Gupton reported that Ms. Stephenson found no basis in fact to the complaint. Ms. Janie Sutton, complainant, requested to address the Board. Chairman Lutterloh agreed but advised against any evidentiary remarks. Ms. Sutton commented that she did not believe Ms. Stephenson did a thorough investigation since she was a previous employee and could not serve in an impartial manner. Ms. Sutton requested that the complaint be investigated by an outside investigator with no connection to the Department and report back to the Board directly.

Mr. Thunberg made a motion to accept the no basis in fact investigation report. Ms. Eikinas seconded the motion. The Board discussed the issue. Mr. Horne called the question. The Board voted. The vote was 10 Yes; 2 No; 2 Recused. The motion was approved. Mr. Ducker then stated he meant to vote nay for the call for the question. Lutterloh restated that a motion to accept the report prepared by Ms. Stephenson saying that there was no basis in fact and that a second had been received. He asked if he could call the question. Lutterloh asked Croom for guidance in this situation. Mr. Horne stated that he would reopen or withdraw the question. Mr. Thunberg, who voted on the majority side, made a motion to reconsider the original motion. Mr. Horne seconded the motion. The Board voted unanimously to reopen the discussion concerning the original motion.

Mr. Ducker reopened the discussion by asking, is it possible to be guilty of willful misconduct as an official because the official didn't address [seek to cure] a previously existing code issue retroactively once he became certified? Mr. Gupton stated that the report addressed this issue. Board discussion resumed. Mr. Thunberg stated that he believed the main issue is whether the Board has jurisdiction over actions of an individual before he becomes certified as a code enforcement official.

Mr. Thunberg restated the motion to accept the recommendation of the investigator that there is no basis in fact. Mr. Horne seconded the motion. The vote of the motion was: 11 Yes; 1 No; 2 Recused.

Item 8: Other Business

Presentation by PSI

Kathy Williams introduced Ms. Jo Anne Wingate and Ms. Nicole Tucker of PSI Services, LLC. Ms. Wingate is Vice President, Client Services. Ms. Tucker is Test Development Specialist.

Ms. Wingate welcomed the opportunity to address the Board on behalf of PSI and stated they were happy to be working with the NC Code Officials Qualification Board. She reported that the project is going well. Wingate gave a brief description of PSI's work history in the examination development industry. She touched on exam development, test security, exam reviews, and confidentiality policy. She turned the discussion over to Ms. Tucker who reviewed the White Paper on Test Development Overview provided by PSI included in the Board member notebooks. This document is Attachment D to the minutes. Tucker presented the process involved with creating and validating exams and the amount of work involved with exam development. Wingate also added an explanation regarding the exam review process and how challenges are made. She also reviewed the main security risks involved when conducting computer based testing with the main risk being "item harvesting" which is where an individual intentionally sets out to gather information that can be shared or sold. Tucker also presented PSI preventative measures to discourage any item harvesting.

The Board asked questions throughout the presentation concerning the item development process and exam review process.

Chairman Lutterloh verified with Kathy Williams that the current review process used for the past 5 years only allows examinees who fail and receive a score between 60 and 69 to review. The examinees only see the missed questions and their answers. Lutterloh asked Williams about the review policy when staff administered exams prior to computer-based testing. She replied that exam reviews were open to anyone who took an exam, regardless of score. The examinee was provided with his test booklet, his answer sheet and an answer key.

Chairman Lutterloh asked how many exam questions were in each exam bank. PSI and DOI staff confirmed that there were approximately 600 exam questions for each trade. PSI confirmed that there were enough for two distinct exam forms. Lutterloh asked if it would be prudent to continue to work toward development of a third distinct form of the exam. Wingate stated that the Board samples are very small and it is hard to have statistics on this low number of items for more than two exam forms.

Chairman Lutterloh stated the Board needed to vote on the exam review policy. He stated his position that the examinee is paying for an exam review because it is included the price of the exam and should be allowed to review what he answered incorrectly regardless of the grade received. Mr. Thunberg, Chairman of the Qualification and Evaluation Committee, stated that the Committee met January 28, 2014 and read from the following recommendations: The exam should be viewed as a measuring tool for competency rather than as a study aid or study guide, and that only applicants who fail the exam be allowed to review the exam; remove the restriction for a specific score requirement for that review; a review should only consist of the questions that the applicant missed; and the applicant be provided with the response that they prepared so they could prepare a challenge if they felt that they provided a correct answer the first time.

Chairman Lutterloh addressed the issue of exam reviews. The statute regarding exam fees includes an exam review. He stated he has received comments from those who were not eligible to review their exams due to grades or that they passed but felt they were entitled to the review since they paid for the review as part of the exam fee. Mr. Croom stated that NC Gen. Stat. § 143-151.16(d) was changed to make the fee inclusive for the exam and review. The way the statute is written now, a separate exam fee may not be charged. Thunberg stated that it doesn't guarantee that everyone will be eligible for an exam review based on NC Gen. Stat. § 93B-8(c).

Thunberg infers that this statute only guarantees those who do not pass an opportunity to review. NC Gen. Stat. § 93B-8(c) further states that the occupancy licensing board is not required to disclose the contents of any exam.

Thunberg made a motion that the Board only offer reviews to those who fail, regardless of score, and that the review include the incorrectly answered questions and answers given by the examinee. Mr. Horne seconded the motion. Chairman Lutterloh asked Ms. Wingate if this motion would meet the recommended review policy of PSI. There was further discussion among the Board. She replied it would meet the recommendation. The motion was approved unanimously.

Adjournment

There being no further business, Mr. Thunberg made a motion to adjourn the meeting. Mr. Horne seconded the motion. The motion was approved unanimously.

Respectfully submitted,

Mike Hejduk

Director, Qualification Assurance Section

OSFM Staff

Attachments:

Attachment A List of New Standard Certificate Issued

Attachment B List of Level III Standard Inspection Certificates, All Technical Disciplines

Attachment C Staff Report

Attachment D PSI White Paper

Note: This meeting has been recorded on CD. Anyone desiring copies should contact the NC Department of Insurance, Engineering Division, Qualification Assurance Section for reproduction costs.

NEW STANDARD INSPECTION CERTIFICATES ISSUED

Active City, County, and State Code Enforcement Officials

By Area and Level

The following individuals have met the certification requirements of GS 143-151.13(a). These individuals have Certificates of Employment (COEs) filed with City, County, or State inspection departments. Their certificates will become valid as of today.

Building Level I

Caudle, Michael Joseph Frixen, Jennifer Jo Johnson, Donald Hampton Nichols, Jody Monroe Spear, John Edward Tipton, Ronnie Leonard

Building Level II

Atwell, Brian Trenton Crouse, Richard Hall Langdon, Seth Garrett Lilley, Ralph Wayne Maready, Jeffrey McMillen, Todd Edward Parr, Gregory Scott Wehrman, Christopher Henry Williams, Keith O'Neal

Building Level III

Dalton, Travis Evan Garner, Eddie Lynn Hickman, Susan Lopez Rodriguez, Juan R White, Carey Dean

Electrical Level I

Beck, Brandon Thomas Dellinger, Lindsey Lee Dishno, Don Alan Everage, Jason Alan Scoggins, William Joseph

Electrical Level II

Hales, Dana Juanita Lombreglia, Dean Michael Parr, Gregory Scott Perry, Martin Ross

Electrical Level III

Cook, Michael Allen Cranford, Michael Travis Heilig, Brian Keith Reiman, Tracy Edward Warren, Allen Eugene

Fire Level I

Allen, Shauna Jo-Vel Carter, Kirk G. Cirasole, Peter Benjamin Cook, Brent Adam Cross, Charles Alan DeBerry, Logan Neil Elliott, Daniel Curtis Fortenberry, Mark Webster Heilig, Tyler L Holmes, Alan H Hux, Lee Wesley Jones, Kevin Wayne Kissner, Tommy Sean Lentz, Adam Charles McKinney, Cody Alan Moon, Robbin Ernest Parker, Roger Darlington Raper, Thomas David Sebastian, Garland Brian Sorrell, Raymond Earl Thiel, Anthony Merl

Fire Level II

Hendren, Barry Lowell Hurlocker, Timothy Ray Krise, Amy Rea Nelms, Jacob Darrell Owens, Joshua Adam Rodrigues, Luis Manuel Scruggs, Shawn Allen Turbeville, Waylon Levi

West, Christopher Dale

Fire Level III

Barkley, Rick Alan Burns, Mark Steven Coleman, Benny Keith Gould, Samuel Steven Harrelson, Ryan Jesse Kelley, Daniel David Manley, Jack Christopher Smith, Michael Lenwood

Mechanical Level I

Coleman, Benny Keith Coltrane, Thomas Eugene Glance, Johnny H. Merritt, John Webster Spence, Christopher Andrew Wiertel, James Mark

Mechanical Level II

Austin, Sheila T. Holland, David Samuel Lyda, Crystal Gail Maready, Jeffrey Potter, William Samuel Williams, Keith O'Neal

Mechanical Level III

Cunningham, Joseph Anthony Fields, Raymond Lee Galloway, Robbie Douglas Hall, John Norris Lowder, Jessie Scott Madeja, George Edward Matheny, Mark Daniel Pope, Daniel Jeromy Putnam, Brandon Gene Rooks, Laura Stimpson Rotchford, Joe John Wheeler, Gary Thompson

Plumbing Level I

Alley , Lawrence Stephen Allison, Michael Clyde Billings, William Scott Coltrane, Thomas Eugene Darroch, Mitchell J. Grinstead, Lemuel Scott Johnson, Donald Hampton McMillen, Todd Edward Merritt, John Webster Turner, David Glenn Woodall, Joshua Cain

Plumbing Level II

Botelho, Steven Cranford, Michael Travis Lilley, Ralph Wayne Maready, Jeffrey Patton, Howard Ronald Potter, William Samuel

Plumbing Level II

Hinson, Roland Jeffrey McAllister, Clarence Henry Moeller, William Howard Norris, William Brian Stanley, Bryan Lars Young, Robbie Lee

PRE-QUALIFICATION FOR STANDARD INSPECTION CERTIFICATES

The following individuals have met all the requirements to receive their Standard Certificates **except** being employed by a city, county, or State inspection department and being assigned the responsibility of enforcing the State Building Code. Their certificates will be issued when they are so employed.

Wehrman, Christopher Henry	Building	II
Reiman, Tracy Edward	Electrical	III
Cirasole, Peter Benjamin	Fire	I
Cross, Charles Alan	Fire	I
Jones, Kevin Wayne	Fire	I
West, Christopher Dale	Fire	I
Rodrigues, Luis Manuel	Fire	II

NEW STANDARD INSPECTION CERTIFICATES ISSUED

By Jurisdiction

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<u>Employer</u>	<u>Inspector</u>	Area/Level
Aberdeen	DeBerry, Logan Neil	Fire I
Aberdeen	Holmes, Alan H	Fire I
Alleghany Co.	Dalton, Travis Evan	Building III
Asheville	Botelho, Steven	Plumbing II
Asheville	Matheny, Mark Daniel	Mechanical III
Asheville	Hendren, Barry Lowell	Fire II
Beech Mountain	Merritt, John Webster	Mechanical I
Beech Mountain	Merritt, John Webster	Plumbing I
Benson	Johnson, Donald Hampton	Building I
Benson	Johnson, Donald Hampton	Plumbing I
Bladen Co.	Alley, Lawrence Stephen	Plumbing I
Boone	Lentz, Adam Charles	Fire I
Buncombe Co.	Allison, Michael Clyde	Plumbing I
Burlington	Warren, Allen Eugene	Electrical III
Burnsville	Tipton, Ronnie Leonard	Building I
Cabarrus County	Caudle, Michael Joseph	Building I
Cabarrus County	Crouse, Richard Hall	Building II
Carteret Co.	Rotchford, Joe John	Mechanical III
Carteret Co. Fire	Gould, Samuel Steven	Fire III
Cary	Hickman, Susan Lopez	Building III
Catawba Co.	Rooks, Laura Stimpson	Mechanical III
Charlotte	Dishno, Don Alan	Electrical I
Charlotte	Krise, Amy Rea	Fire II
Charlotte	Frixen, Jennifer Jo	Building I
Chatham Co.	Beck, Brandon Thomas	Electrical I
Chatham Co.	Darroch, Mitchell J.	Plumbing I
Durham	Wheeler, Gary Thompson	Mechanical III
Eden	Woodall, Joshua Cain	Plumbing I
Engineering Div.	Moeller, William Howard	Plumbing III
Fayetteville	Cunningham, Joseph Anthony	Mechanical III
Fayetteville	Everage, Jason Alan	Electrical I
Forest City	Scoggins, William Joseph	Electrical I
Fuquay-Varina	Austin, Sheila T.	Mechanical II
Fuquay-Varina	Spence, Christopher Andrew	Mechanical I
Garner	Stanley, Bryan Lars	Plumbing III
Goldsboro	Fields, Raymond Lee	Mechanical III
Graham Co.	Nelms, Jacob Darrell	Fire II
Greenville	Hall, John Norris	Mechanical III
Halifax Co.	Patton, Howard Ronald	Plumbing II
Haywood County	Coleman, Benny Keith	Fire III
Haywood County	Coleman, Benny Keith	Mechanical I
Haywood County	Glance, Johnny H.	Mechanical I
Henderson Co.	Lyda, Crystal Gail	Mechanical II
Hickory	Raper, Thomas David	Fire I
High Point	Madeja, George Edward	Mechanical III
Holly Springs	Billings, William Scott	Plumbing I
Holly Springs	Pope, Daniel Jeromy	Mechanical III
Iredell Co.	Perry, Martin Ross	Electrical II
Jackson Co.	Fortenberry, Mark Webster	Fire I
Jacksonville	Holland, David Samuel	Mechanical II
Jacksonville	Maready, Jeffrey	Building II

ATTACHMENT B

Jacksonville	Maready, Jeffrey	Mechanical II
Jacksonville	Maready, Jeffrey	Plumbing II
Jacksonville	Cook, Brent Adam	Fire I
Employer	<u>Inspector</u>	Area/Level
Jacksonville	Kissner, Tommy Sean	Fire I
Jacksonville	Parker, Roger Darlington	Fire I
Jacksonville	Sorrell, Raymond Earl	Fire I
Jacksonville	Thiel, Anthony Merl	Fire I
Johnston Co.	Cook, Michael Allen	Electrical III
Johnston Co.	Langdon, Seth Garrett	Building II
Johnston Co.	Parr, Gregory Scott	Building II
Johnston Co.	Parr, Gregory Scott	Electrical II
Kings Mountain	Putnam, Brandon Gene	Mechanical III
Leland	Hales, Dana Juanita	Electrical II
Lexington	Turbeville, Waylon Levi	Fire II
Lincoln Co.	Dellinger, Lindsey Lee	Electrical I
Mebane	Williams, Keith O'Neal	Building II
Mebane	Williams, Keith O'Neal	Mechanical II
Mecklenburg Co.	Atwell, Brian Trenton	Building II
Mecklenburg Co.	Rodriguez, Juan R	Building III
Mecklenburg Co.	Wiertel, James Mark	Mechanical I
Montgomery Co.	Norris, William Brian	Plumbing III
Moore Co.	McMillen, Todd Edward	Building II
Moore Co.	McMillen, Todd Edward	Plumbing I
Morehead City	Lombreglia, Dean Michael	Electrical II
Morehead City Fire	Manley, Jack Christopher	Fire III
Mount Airy	Owens, Joshua Adam	Fire II
Nags Head	McKinney, Cody Alan	Fire I
Onslow Co.	Hinson, Roland Jeffrey	Plumbing III
Onslow Co.	Turner, David Glenn	Plumbing I
Person Co.	Grinstead, Lemuel Scott	Plumbing I
Raleigh	Burns, Mark Steven	Fire III
Raleigh	Galloway, Robbie Douglas	Mechanical III
Raleigh	Potter, William Samuel	Mechanical II
Raleigh	Potter, William Samuel	Plumbing II
Randleman	Harrelson, Ryan Jesse	Fire III
Randleman	Smith, Michael Lenwood	Fire III
Randolph Co.	Coltrane, Thomas Eugene	Mechanical I
Randolph Co.	Coltrane, Thomas Eugene	Plumbing I
Randolph Co.	Heilig, Brian Keith	Electrical III
Roanoke Rapids	Hux, Lee Wesley	Fire I
Rowan Co.	Lowder, Jessie Scott	Mechanical III
Rowan Co.	Young, Robbie Lee	Plumbing III
Rutherford Co.	Elliott, Daniel Curtis	Fire I
Salisbury	Barkley, Rick Alan	Fire III
Salisbury	Heilig, Tyler L	Fire I
Salisbury	Hurlocker, Timothy Ray	Fire II
Salisbury	Moon, Robbin Ernest	Fire I
Salisbury	Sebastian, Garland Brian	Fire I
Scotland Co.	McAllister, Clarence Henry	Plumbing III
Southern Pines	Garner, Eddie Lynn	Building III
Thomasville	Cranford, Michael Travis	Electrical III
Thomasville	Cranford, Michael Travis	Plumbing II
Washington Co.	Lilley, Ralph Wayne	Building II
Washington Co.	Lilley, Ralph Wayne	Plumbing II
Watauga Co.	Spear, John Edward	Building I
=		=

ATTACHMENT B

Waynesville	Kelley, Daniel David	Fire III
Waynesville	Nichols, Jody Monroe	Building I
Whiteville	White, Carey Dean	Building III
Wilson	Allen, Shauna Jo-Vel	Fire I
Winston-Salem	Carter, Kirk G.	Fire I
Winston-Salem	Scruggs, Shawn Allen	Fire II

Standard Certificates by Area Earned This Quarter

	Active	Pre-	
Area	Inspectors	Qualification	Reciprocity
	GS 143-151.13(a)	GS 143-151.13(a)	GS 143-151.14
Building	18	1	0
Electrical	12	1	0
Fire	31	5	0
Mechanical	21	0	0
Plumbing	22	0	0
Totals	104	7	0

Staff Reports

NCCOQB [est. 1977]

DIRECTOR (Mike Hejduk, March)

NC Code Enforcement Officials (CEOs): STRATEGIC PLANNING FOR THE NEXT GENERATION?

COMPETENCE

- o Certification Application, Review, Approval, <u>Examination</u>
- o Authority Having Jurisdiction (AHJ) Local Government Department Administration

COMMUNICATION

- Education Standard Courses, Continuing Education, Sponsors, Instructors (staff memo, PIO)
- Industry Associations (inspectors, contractors, manufacturers)

CONSEQUENCES

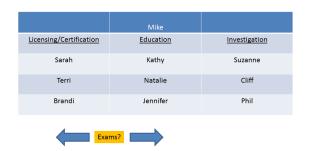
- o Benefits to public safety, risk management, insurance premiums
- o Investigation Qualifications, Permit, Plan Review, Field Inspection Reports
- Disciplinary Action
- CONSISTENCY

What's in a name? QUALIFICATIONS ASSURANCE SECTION (QAS)

Licensing/ Certification Education Investigation

Functions

Organization Chart



Stats

- 4,107 Inspectors [Certificate of Employment (COE) on file with AHJ]
- 7,193 Certificates [Limited, Probationary, Standard: Building, Mechanical, Electrical, Plumbing, Fire]
- 507 Jurisdictions; 100 Counties; 407 Cities (Building, Fire, Housing)
- 309 Sponsors; 685 Instructors;

Tools

- Web based database for *external* and *internal* users. Online transactions, payments, rosters, renewals (\$).
- NC Community College System for Standard Courses [traditional classroom & online?]
- OSFM technical expertise Code books, Code Consultants/Interpretations, online education
- North Carolina State Building Code: Administrative Code and Policies (2012) [
- NC General Statutes; NC Administrative Code (aka Board Rules)
- Other agencies

Certification / Licensing (Sarah van Doornewaard, 10 yrs – leaving 4/30) (Terri Tart, 15 yrs NCHILB)

- Emails needed for all CEOs.
- Staff member support to Qualifications and Evaluation; Policies and Procedures Committees?
- Issue certificate upon passing exam and COE with AHJ rather than quarterly at Board meetings?
- Pros and Cons of multi-trade inspectors, Probationary Certificate expiration, etc.
- Facilitate Probationary inspection experience among AHJs?
- Consistency and Credibility of CEOs Professional image?

Examination Administration (Kathy Williams, 27 yrs)

- Exam development and exam reviews conducted by staff, contract psychometric analysis?
- Staff member support to Qualifications and Evaluation Committee?
- Exam Development Committees considered Advisory Committees to the Board or Standing Committees?
- Credibility of Exam?

Chapter 93B Occupational Licensing Boards

§ 93B-8. Examination procedures.

- (a) Each applicant for an examination given by any occupational licensing board shall be informed in writing or print of the required grade for passing the examination prior to the taking of such examination. [70%]
- (b) Each applicant for an examination given by any occupational licensing board shall be identified, for purposes of the examination, only by number rather than by name.
- (c) Each applicant who takes an examination given by any occupational licensing board, and does not pass such examination, shall have the privilege to review his examination in the presence of the board or a representative of the board. Except as provided in this subsection, an occupational licensing board shall not be required to disclose the contents of any examination or of any questions which have appeared thereon, or which may appear thereon in the future.
- (d) Notwithstanding the provisions of this section, under no circumstances shall an occupational licensing board be required to disclose to an applicant questions or answers to tests provided by recognized testing organizations pursuant to contracts which prohibit such disclosures. (1973, c. 1334, s. 1; 1991, c. 360, s. 1.)

Education (Natalie Pollard, 9 yrs) (Jennifer Hollyfield, 17 yrs NCHILB)

- Staff member support to Education and Research Committee?
- Standard Courses Cancellations / Distance Education?
- Continuing Education Courses availability, convenience, cost?
- Law and Administration Course − 3 instructors.
- Content and Consistency of Educational program offerings?

Investigation (Suzanne Taylor, 9 yrs; Cliff Isaac, 1 yr - leaving) (Phil Joyner, 7 yrs NCHILB)

- Create a new Standing Committee: Investigation Review Committee? [By Laws change required]
- Complaint database, Investigator workload / other activities?
- Lessons Learned? Disciplinary Actions publicized?
- Ethics awareness and conflict of interest reminders?
- Competence and Character of CEOs?

PROGRAM EVALUATION - Are we achieving our mission, goals and objectives? Feedback, Surveys?

PERFORMANCE MANAGEMENT – Inputs, Processes, Outputs and Outcomes. Measurements, Benchmarks?

RECAP OF PRIOR BOARD MEETING MINUTES:

January 28, 2014 (teleconference):

- Standard Certificate pilot program for online courses. Instructors TBD.
- Exam Review: recommend only applicants who fail the exam be allowed to review the exam, remove restriction for a specific score requirement, only questions that the applicant missed and his responses.

October 22, 2013:

- OSFM Research and Program Development (RPD) assigned to facilitate the updating of the standard course
 materials, in conjunction with the technical expertise by Code Consultants.
- Session Law 2013-118 BCC six year code cycle.
- Session Law 2013-118 BCC limit of routine inspections for residential buildings.
- Discussion tabled.
- IT issues
- Test Review, Policies of other Licensing boards. Define for RFP.
- Funding secured to develop online pilot course for one or more Standard courses in the community college virtual learning community. Eastern part of the state.
- House Bill 120 changes.

August 27, 2013:

- New board members Terry and Schrum.
- New Education Coordinator Natalie Barefoot.
- New RFP for electronic testing services throughout the state. Course and exam development will be in-house by NCDOI as well as exam challenges. Goals reduced exam fees and improved course development. No in-house staff qualified as psychometrician. Scaled scoring not common on other professional exams in NC.
- Certificate error McElreath
- Legislative update, Session Law 2013-118 & 2013-413.
- Exam Trend line information for Electrical Level II. Paper (2006 2009) vs computer-based testing (CBT) (2009 to date). Review option score between 60 and 69. Paper to CBT coincided with a drop in number of exams taken from 1,600 to 700 due to cost \$172 and AHJ reduction in force.
- Standard Course materials (PowerPoint, instructor workbooks, sample quizzes) improvement with help of Evaluation Services group within OSFM.
- Chairman Lutterloh, Vice Chairman Thunberg, and Secretary Noles elected.
- Committee chairs elected.
- Standard Course cancellations, investigate regional approach. Online courses.
- Law and Administration (L&A) course: 6 hours of CE credit for Standard Course applied to any one discipline. Research mandate a period L&A course including Board rule changes. Staff research the pros, cons, and issues related to approving a standalone CE L&A courses and include recommendations on any related approval criteria.

April 23, 2013:

- New board member Abu-Lebdeh.
- Staff member Celestine Phil resigned her position. New staff member Helen DiPietro.
- Ad Hoc RFP Committee.
- Thunberg requested data trend for exams.
- Exam administration complaints.
- Consent Agreement Aycock
- Standard Course cancellation

Certification Report:

PROBATIONARY CERTIFICATES

Probationary certificates are available to code enforcement officials (CEOs) who are newly employed or those who need to achieve a higher level of certification. The purpose of the probationary certificate is to allow code enforcement officials the ability to perform code enforcement while receiving on-the-job training, taking required standard courses and passing the state examination. Probationary certificates are valid for a period of two years and not renewable.

Notices of expiration are sent to each inspector and his or her City or County Manager. 80 probationary certificates expired this quarter and are listed below with their corresponding jurisdiction.

Jurisdiction	<u>Inspector</u>	Area/Level		Jurisdiction	Inspector	Area/Level	
Anson Co.	Gaskins, Bryan Keith	Electrical	III	Mecklenburg Co.	Grahl, James Samuel	Mechanical	I
Anson Co.	Gaskins, Bryan Keith	Building	III	Mecklenburg Co.	Hicks, Bobby Stancill	Mechanical	I
Asheville	Meek, Diane Darcy	Plumbing	III	Mecklenburg Co.	Laton, Robert Calvin	Building	I
Asheville	Meek, Diane Darcy	Mechanical	III	Montgomery Co.	Norris, William Brian	Fire	II
Asheville	Meek, Diane Darcy	Electrical	III	Mooresville	Smith, Mark Hampton	Fire	II
Beaufort	Cowley, Sean Dale	Fire	II	Morehead City	Contreras, Griselda Chavez	Electrical	I
Belmont	Short, Gregory Daniel	Fire	II	Morehead City	Contreras, Griselda Chavez	Building	I
Brunswick Co.	Stanley, David Meachum	Mechanical	I	Mount Airy	Martin, Matthew Allen	Fire	III
Buncombe Co.	Stewart, Michael Douglas	Mechanical	I	Nags Head	Krafft, Todd Davis	Plumbing	I
Canton	Hodge, Richard E.	Plumbing	I	Nags Head	Krafft, Todd Davis	Electrical	I
Canton	Wheeler, Linton Dwight	Plumbing	I	Nags Head	Krafft, Todd Davis	Mechanical	I
Canton	Wheeler, Linton Dwight	Electrical	I	Nags Head	Krafft, Todd Davis	Building	I
Charlotte	Bradley, Eugene L.	Building	I	Nags Head	Dillon, Anthony Lee	Fire	I
Elizabethtown	Smith, James Graham	Fire	II	Nags Head	Swain, Matthew Aaron	Fire	I
Engineering Div.	Moeller, William Howard	Plumbing	III	Nags Head	Wolfe, Phillip Joseph	Fire	II
Forest City	Scoggins, William Joseph	Building	III	Pinehurst	Johnson, April Denise	Fire	I
Forsyth Co.	Griffin, James Monrow	Fire	III	Pinehurst	Nall, Eric Christopher	Fire	I
Fuquay-Varina	Austin, Sheila T.	Fire	III	Randleman	Blackburn, Kevin Michael	Fire	II
Fuquay-Varina	Austin, Sheila T.	Plumbing	III	Richmond Co.	Shackelford, Robert Gerald	Building	I
Fuquay-Varina	Smith, Samantha Ficzko	Building	II	Roxboro	Gentry, William Nelson	Fire	II
Garner	Stanley, Bryan Lars	Plumbing	III	Roxboro	Hamlett, John Ernest	Fire	II
Gastonia	Craft, Tony James	Building	I	Roxboro	Wrenn, David Brent	Fire	III
Gastonia	Goodman, Clayton Shane	Electrical	III	Rutherford Co.	Bostic, Steven Blake	Plumbing	II
Gastonia	Goodman, Clayton Shane	Building	I	Rutherford Co.	Bostic, Steven Blake	Electrical	II
Greenville	Strickland, George Amos	Fire	I	Rutherford Co.	Bostic, Steven Blake	Fire	II
Hamlet	Steen, Chance Stanley	Fire	II	Rutherford Co.	Bostic, Steven Blake	Mechanical	II
Harnett Co.	Toler, Christopher Scott	Fire	II	Rutherford Co.	Bostic, Steven Blake	Building	II
Henderson	Twisdale, Timothy Lee	Fire	III	Salisbury	Barkley, Rick Alan	Fire	III
Hendersonville	Nicholson, Dustin Alan	Fire	III	Salisbury	Hurlocker, Timothy Ray	Fire	II
High Point	Alexander, Brandy Nicole	Fire	II	Shelby	Beck, Jason Shane	Fire	II
Holly Springs	Parson, Ricky David	Fire	II	Shelby	Queen, Stanley Josh	Fire	II
Holly Springs	Ritter, Michael Allen	Fire	II	Southern Pines	Garner, Eddie Lynn	Building	III
Hyde Co.	Carter, Brian Wilton	Fire	I	Spindale	Guillermo, James Aaron	Fire	I
Jackson Co.	Fortenberry, Mark Webster	Electrical	III	Statesville	Mitchell, Brian Dale	Fire	I
Jackson Co.	Fortenberry, Mark Webster	Fire	I	Statesville	Smith, Joshua James	Fire	I
Jackson Co.	Fortenberry, Mark Webster	Building	III	Statesville	Fox, John Eric	Building	I
Jackson Co.	Robinson, Martha Bradley	Fire	I	Thomasville	Cranford, Michael Travis	Plumbing	II
Jacksonville	Graziano, Eric Michael	Fire	II	Town of Beaufort	Keefe, David Charles	Fire	II
Jacksonville	Lee, Spencer Eugene	Fire	II	Tryon	Edwards, Nicholas Craig	Fire	I
Kitty Hawk	Wilkins, Jeremy Bryan	Fire	II	Tryon	Miller, Christian Jericho	Fire	I
Leland	Heunemann, Eric William	Fire	II	Watauga Co.	Spear, John Edward	Building	I
Lexington	Baker, Ryan Kody	Fire	II	Watauga Co.	Buchanan, Paul Robert	Building	II
Lexington	Graham, Jeremy Michael	Fire	I	Watauga Co.	Buchanan, Paul Robert	Electrical	II
Lexington	Silver, Frederick Mac	Fire	II	Wilmington	Dowless, Michael Walton	Fire	I
Lexington	Simerson, Billy Jeremiah	Fire	I	Winston-Salem	Riddle, Nicholas T.	Fire	I
Lexington	Spivey, Timothy Aaron	Fire	II	Winston-Salem	Small, Patrick O.	Fire	II
Mecklenburg Co.	Atwell, Brian Trenton	Building	II	Winston-Salem	Spaugh, Robert Austin	Fire	I

STANDARD CERTIFICATE TESTING –January 15, 2014 – April 8, 2014

Examination Summary

Area/Level	Number Taking	Number Passing	% Passing	High Score	Low Score
Building Inspector I	13	6	46	93	51
Building Inspector II	11	8	73	81	59
Building Inspector III	13	5	38	82	42
Electrical Inspector I	9	4	44	94	53
Electrical Inspector II	7	4	57	87	64
Electrical Inspector III	7	5	7 1	81	40
Fire Inspector I	29	21	72	100	48
Fire Inspector II	12	8	67	88	63
Fire Inspector III	9	7	78	87	65
Mechanical Inspector I	8	6	75	88	64
Mechanical Inspector II	5	5	100	96	72
Mechanical Inspector III	11	10	91	85	68
Plumbing Inspector I	11	11	100	96	78
Plumbing Inspector II	6	6	100	95	73
Plumbing Inspector III	5	5	100	86	71
Totals	156	111	75		

Fifth Level III Standard Inspection Certificate

There is one code enforcement official receiving his fifth level III certificate today. His name is Michael Allen Cook of the Johnston County Insp. Dept.

The total number of code enforcement officials who have ever achieved this level of certification is 229. The number of active code enforcement officials who have five active level III certificates is 157.

STANDARD CERTIFICATE TESTING -January 15, 2014 - April 8, 2014

The Board offers 15 different exams, one for each area and level and are administered by computer. Each exam contains 150 multiple choice questions and has a 3 ½ hour time period. Exams are open book. Examinees are allowed to use their own code books but are not allowed to bring in any supplemental materials.

Examination Summary

	Number	Number	%	High	Low
Area/Level	Taking	Passing	Passing	Score	Score
Building Inspector I	13	6	46	93	51
Building Inspector II	11	8	73	81	59
Building Inspector III	13	5	38	82	42
Electrical Inspector I	9	4	44	94	53
Electrical Inspector II	7	4	57	87	64
Electrical Inspector III	7	5	71	81	40
Fire Inspector I	29	21	72	100	48
Fire Inspector II	12	8	67	88	63
Fire Inspector III	9	7	78	87	65
Mechanical Inspector I	8	6	75	88	64
Mechanical Inspector II	5	5	100	96	72
Mechanical Inspector III	11	10	91	85	68
Plumbing Inspector I	11	11	100	96	78
Plumbing Inspector II	6	6	100	95	73
Plumbing Inspector III	5	5	100	86	71
-					
Totals	156	111	75		

Exam Complaint Summary

The staff received three complaints concerning exams conducted this quarter. The types of complaints are listed below:

Registration		1
Grade Notification Letter	1	
Computer issue		1

The grade notification letter issue and the computer issue were investigated and corrective action was taken as necessary. The registration issue is new. Staff hasn't received final notification from the examinee or ICC.

Exam Administration Summary

The contract with our current vendor, ICC and Pearson Vue will expire on June 30, 2014. The Board and staff have selected PSI to begin exam administration of all 15 certification exams on July 1, 2014. The kickoff meeting with PSI staff occurred March 11, 2014. During this meeting, staff and PSI discussed the deliverables and the timetable for these items. We are on task to meet the timetable set by PSI for this project to begin on July 1, 2014. The items that have been delivered and/or completed are:

- 1. Transfer of existing item bank for all 15 exams
- 2. Test blueprint of item classifications
- 3. Pass and Fail Letters
- 4. Candidate Information Bulletin (CIB)
- 5. SFTP site set up for transfer of large files
- 6. List of all permissible code books

PSI will begin registration services as of June 16, 2014 for exams scheduled on or after July 1, 2014.

Exam Development Summary

Beginning July 1, 2014, staff will become responsible for exam development of all 15 exams. After review of the item bank with PSI it has been determined that we have enough questions to create two distinct exam forms. We have been advised to use a 30 to 40 percent overlap of questions to provide and maintain consistency between multiple exam forms. However, exam question development will be an ongoing activity. There is always a need to develop more questions due to the need to retire questions and also to address industry and code changes. As part of this process, we will be reviewing the performance of the exams as a whole and questions singlularly. This will involve evaluation of the p-value and point bi-serial correlation. Exams will no longer be scored on scale. The passing score is 70 in accordance with the Board's Rule (11NCAC, 8.0706(g)(4)).

Education Report:

Continuing Education Courses – Statistics: January 15, 2014 to April 08, 2014

New Continuing Education Courses Approved for Period	41
New Continuing Education Instructors Approved for Period	3
New Continuing Education Sponsors Approved for Period	4
Continuing Education Course Rosters Submitted for Period	181

Standard Code Courses - Statistics: January 15, 2014 to April 08, 2014

Standard Courses Scheduled for Period	71
Building	18
Electrical	22
Fire	25
Mechanical	17
Plumbing	17
Law and Administration	7
Standard Courses Canceled for Period	13
Standard Courses Rosters Received for Period	48
Standard Course Rosters Pending for Period	14

Standard and continuing education courses are advertised on the NC Department of Insurance website at https://apps.ncdoi.net/f?p=114:505%20:0:::::. Once you reach this site, you may search for a course based on type, trade, and format.

Sponsor Workshop

The Sponsor Workshop is scheduled to be held April 24, 2014.

Instructor Certification Workshop

The Standard Code Course Instructor Certification Workshop was held on April 10, 2014. Five attended and one was certified in Fire, one in Plumbing, one in Building, one in Mechanical and one in Law & Administration. Feedback was favorable from all participants.

IT Issues

Staff continues to work with IT to get education programming issues resolved.

<u>Investigations Begun – Not Completed</u> Lacey Taylor <u>Investigations - Completed</u> No Basis in Fact Noles **Basis in Fact** Harris **DISCIPLINARY ACTION (RECOMMENDED) VOLUNTARY SETTLEMENT AGREEMENTS** Harris **CONSENT AGREEMENTS** None **DISCIPLINARY HEARINGS** None **CERTIFICATION REVIEW** None

Investigation Report:

Attachment 3

Executive Summary PSI Services LLC

PSI has a focused history as a privately held company with nearly 70 years of testing excellence and providing examination solutions to government regulatory agencies, corporations and professional associates. Over the past two decades, PSI has become a leader in delivery state-based regulatory licensure testing services; growing faster than our main competitors in the state licensing examination arena, a testament to our quality programs and our focus on superior customer service.

As part of our examination solutions we focus heavily on:

- The importance of using procedures that are based on psychometric principles to develop reliable, valid and fair examinations that are legally defensible.
- Developing large item banks with real data on all items.
- Test equivalency is required for examination fairness and consistency of test scores.
 - o Content equivalence is when the test blueprint is identical between forms.
 - o Statistical equivalence is when the score distribution is identical or equitable.
- When data is not available and test forms are constructed using Angoff rating values, it is recommend that forms share 30%-40% of the same content.
- Test security is critical to maintain the validity of a testing program.
 - Sharing test information during the examination
 - o Non-malicious test information sharing after an examination
 - Item Harvesting
 - The intentional recording through memorization of items to be shared or sold.
 - Eligibility requirements and retake rules can assist in minimum unnecessary exposure to test items.
 - Examination reviews failing vs. passing candidates conducted in a controlled environment.
 - Strong confidentiality agreements to assist in preventing these types of activities

We thank the Board for the opportunity to present this white paper and look forward to an open discussion regarding any questions or concerns about the examination process that is being developed for the NC Code Officials Qualification Board.

Test Development Overview

Licensing and certification examinations play an extremely important role in gathering information about a candidate's ability to practice in a competent and safe manner. Test development refers to the methodologies and systematic procedures used to develop exams that are valid, reliable, fair, and legally defensible. Figure 1 shows the cyclical process of test development. PSI has established the following guidelines for the development of its examinations. These guidelines are based on sound psychometric principles and are supported by 60 years of experience in providing testing solutions for corporations, professional associations, and government regulatory agencies.

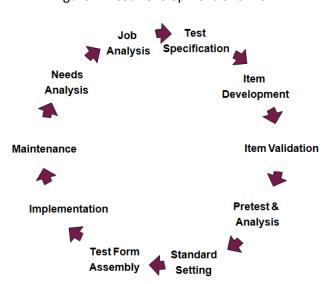


Figure 1. Test Development Overview

Job Analysis and Test Specification

Test development begins with a Job Task Analysis (JTA) to establish the critical knowledge, skills, and abilities to competently and safely practice in a given profession. Job Analyses can be conducted using an expert panel or survey methodology and result in the creation of a test specification. The test specification clearly outlines content to be covered by the exam and the relative weighting of each content area. Test specifications, also called content outlines, are used by item writers to develop new items, by test developers to assemble valid exams, and by educators and candidates for exam preparation. Job Analyses are repeated every five to eight years or when there is a significant change in the industry or profession.

Item Development and Validation

Test items are developed to cover the core principles, concepts, and practices described in industry-specific textbooks and state regulation. Every test item is referenced to an authoritative resource and is classified or linked to a specific point on the content outline to support test validity. Items are developed by subject matter experts with guidance and training from test development specialists to ensure that items are consistent with

psychometric guidelines. Items are further reviewed by a committee of subject matter experts for accuracy and relevancy.

Item Analysis

It is best practice to pretest items prior to use in determining a candidate's test score. An item exposure of 30 or more candidates begins to yield stable item performance statistics. Statistics used to analyze item performance are proportion correct (pvalue), which indicates the proportion of candidates that answered the question correctly and is an indicator of item difficulty, and point biserial (pBis), a correlation statistic comparing how well performance on the exam correlates with answering the particular item correctly. Items are flagged if statistical performance values are not within an acceptable range: pvalue between 0.30 and 0.95 and pBis above 0.10. These items are reviewed to determine if they should be removed from the item bank or edited before future use. For new testing programs it may not be possible to gather item performance statistics prior to testing. In these cases, it is appropriate to rely on other item difficulty measures like average Angoff rating for test form assembly.

Standard Setting

"Standard setting is the methodology used to define levels of achievement or proficiency and the cutscores corresponding to those levels." (Bejar, 2008) It is a critical step in the test construction of valid and reliable exams. Standard setting methods include the Angoff, Bookmark, and Nedelsky, with the Modified Angoff being the most widely used. All of these methods rely on a panel of subject matter experts to set the appropriate levels of proficiency.

Standard settings begin with a discussion of minimal competence as defined as the knowledge and ability that is required for minimal proficiency at the time of licensure. Minimally competent candidates are candidates who have just enough of the required knowledge to be licensed. The discussion of minimal competence lays a cognitive foundation for subject matter experts as they rate items for relevancy and item difficulty.

When using the Modified Angoff method, subject matter experts are asked to rate each item by identifying the percentage of minimally competent candidates that will answer the item correctly. Judges then discuss their ratings and are allowed to modify if necessary. When item performance data is available it can be used to assist judges in applying item ratings.

Test Form Assembly

Test forms are assembled to the appropriate cutscore established by the standard setting and content specifications. When item data is available it can be used to build test forms that are equivalent in difficulty. Test form equivalency is very important as it guarantees that all candidates are being held to the same passing standard.

In the absence of performance data, test forms are built using only the average Angoff rating for each item. Using average Angoff ratings to establish item difficulty is appropriate, however, it will include some error as the individual judge ratings across different subject matter experts panels will vary. It is important to take this into account when assembling test forms. An item overlap of at least 30% to 40% supports test form equivalency. Test and Item Performance Monitoring

Test and item performance is continually monitored following test implementation. Specifically, pass rates, test reliability, and item statistics are reviewed to ensure that exams are performing within ranges. Exam Maintenance

As exams are monitored and the need arises, exam review meetings are conducted to create new items, revise poorly performing items, and review item content against any regulation or code changes. These item reviews result in updates to the live exams.

Exam Security Issues and Preventive Measures

Security of test items is a critical component of maintaining the validity of a testing program. Foreknowledge of test content not only jeopardizes the fairness and legal defensibility of an exam, but challenges if the exam can still be used as a valid measure of candidate ability as test scores no longer represent competency but exposure to test items. Below are common exam security risks and preventive measures. Sharing test information during an examination

Computer based testing provides several opportunities to reduce the risk of information sharing during an exam. Providing individual computers with privacy carrels limits the ability to glance at another candidate's screen. Additionally, items are administered randomly for each candidate and candidates taking the same licensing or certification exam are separated.

Non-malicious test information sharing after an exam

Candidates may innocently share test information following an exam by discussing their testing experience. The use and publication of a strong confidentiality agreement helps to make candidates aware of their responsibility for keeping test information secure. Below is a standard security agreement that candidates must agree to and accept before testing can commence.

Candidate Security Agreement

I will not give or receive assistance during or after taking the examination, including the creation or use of unauthorized study materials or unauthorized notes. I acknowledge that I have not taken any unauthorized study materials or unauthorized notes into the testing area.

I will not copy and remove examination questions or answers by any means from the test center. I will not share or discuss examination questions or answers at any time after leaving the test center.

I understand that violating the confidential nature of the licensing examination can result in severe civil or criminal penalties, invalidation of test scores, and reporting to the agency sponsoring the exam.

Item Harvesting

Item harvesting is the willful or intentionally gathering of test information to be shared or sold. Item harvesting occurs by a candidate attempting to record or memorize test items during an exam. It can be detected by reviewing item times (is a candidate spending an excessive amount of time on a small number of items), unexpected item response patterns, and a high number of retakes of an exam.

Prevention of item harvesting can be accomplished by establishing guidelines that limit exposure to test content. Eligibility rules, such as completion of prelicensing education, limits testing to individuals who have demonstrated a clear intent to be licensed or certified in the profession. Retake rules, such as limiting how soon and how often candidates can retake an exam, also provide a layer of protection for excessive item exposure.

Candidate exam reviews allows candidates to review their performance on an exam administration. Establishing thoughtful exam review procedures limits the ability to harvest test items. For "Pass/Fail" exams, reviews should be limited to failing candidates only. Exposing items to passing candidates provides no added value to the candidate while exposing test items.

Further, candidates should be allowed to review only items that were answered incorrectly with just the candidate's answer available. Not revealing the item key allows the item to stay in the item bank longer. Showing an item key may impact the performance of an item as the item information can be easily shared with other test takers. These items will have a much shorter life and can result in a trend towards high pvalues or low or negative point biserial, as getting the item correct no longer correlates with whole test performance but exposure to the test item. Early removal of items from the available bank due to excessive exposure results in problems to developing a robust item bank, especially for exams with small testing volumes as it may take up to a year or more to gather sufficient data to support stable item statistics.

Business Rules

The business rules that have been established for this program as it relates to testing, retake and reviews are as follow:

- An eligibility will be provided by QAS for each attempt made by a candidate
- The eligibility period is valid for five (5) years
- Following an unsuccessful attempt, the candidate will need to re-apply to QAS for a new eligibility.
 - There is a sixty (60) day waiting period between examination attempts.
- A passing or failing candidate is entitled to request a review.
 - o Review must be completed with 30 days of the last passed or failed attempt
 - Candidates will be presented with the item(s) they failed and their answer.

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