

**COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS  
SAIPAN, TINIAN, ROTA and NORTHERN ISLANDS**



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**COMMONWEALTH REGISTER**

**VOLUME 36  
NUMBER 10**

**OCTOBER 28, 2014**

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# COMMONWEALTH REGISTER

VOLUME 36  
NUMBER 10

OCTOBER 28, 2014

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# DEPARTMENT OF PUBLIC SAFETY

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

Jose M. Sablan Building Susupe

Caller Box 10007

Saipan, MP 96950

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## PUBLIC NOTICE OF CERTIFICATION AND ADOPTION OF REGULATIONS OF THE Department of Public Safety – Fire Division Fire Prevention and Arson Investigation Unit

PRIOR PUBLICATION IN THE COMMONWEALTH REGISTER  
AS PROPOSED REGULATIONS  
Volume 36, Number 36, pp 035411-035451, of August 28, 2014

### Regulations of the Department of Public Safety - Fire Division, Fire Prevention and Arson Investigation Unit: Commonwealth Fire Safety Code, Fire Code Rules and Regulations, Sections 1-41.

ACTION TO ADOPT PROPOSED REGULATIONS: The Commonwealth of the Northern Mariana Islands, Department of Public Safety (“DPS”), Fire Division (“FD”), Fire Prevention and Arson Investigation (“FPAI”) Unit, HEREBY ADOPTS AS PERMANENT regulations the Proposed Regulations which were published in the Commonwealth Register at the above-referenced pages, pursuant to the procedures of the Administrative Procedure Act, 1 CMC § 9104(a). The DPS-FD, FPAI Unit announced that it intended to adopt them as permanent, and now does so. I also certify by signature below that:

as published, such adopted regulations are true, complete and correct copy of the referenced Proposed Regulations,

and that they are being adopted without modification or amendment.

PRIOR PUBLICATION: The prior publication was as stated above.

MODIFICATIONS FROM PROPOSED REGULATIONS, IF ANY: [NONE].

AUTHORITY: The DPS-FD, FPAI Unit is required by the Legislature to adopt rules and regulations regarding those matters over which the DPS-FD, FPAI Unit has jurisdiction, including its regulation of the Fire Code Rules and Regulations. PL 11-56, the “Commonwealth Fire Safety Code Act of 1998.”

EFFECTIVE DATE: Pursuant to the APA, 1 CMC sec. 9105(b), these adopted regulations are effective 10 days after compliance with the APA, 1 CMC §§ 9102 and 9104(a) or (b), which, in this instance, is 10 days after this publication in the Commonwealth Register.

COMMENTS AND AGENCY CONCISE STATEMENT: Pursuant to the APA, 1 CMC sec. 9104(a)(2), the department has considered fully all written and oral submissions respecting the proposed regulations. Upon this adoption of the regulations, the department, if requested to do so by an interested person, either prior to adoption or within 30 days thereafter, will issue a concise statement of the principal reasons for and against its adoption, incorporating therein its

reasons for overruling the considerations urged against its adoption. Please see the following pages for this agency's concise statement, if there are any, in response to filed comments.


I DECLARE under penalty of perjury that the foregoing is true and correct and that this declaration was executed on the 15th day of October 2014, at Saipan, Commonwealth of the Northern Mariana Islands.

Certified and ordered by:

  
\_\_\_\_\_  
Thomas M. Manglona, Acting Commissioner  
Department of Public Safety

October 15, 2014  
Date

Filed and  
Recorded by:

  
\_\_\_\_\_  
ESTHER SN. NESBITT  
Commonwealth Register

10.16.2014  
Date



# COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS



STATE BOARD OF EDUCATION  
PUBLIC SCHOOL SYSTEM  
P.O. BOX 501370  
SAIPAN, MP 96950

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*Student Representative*  
*Larita Dee Ada Horog*

*Teacher Representative*

*Commissioner of Education*  
*Rita A. Sablan, Ed.D.*  
*coe.rusa@cnmipss.org*

## **PUBLIC NOTICE OF PROPOSED RULES AND REGULATIONS WHICH ARE AMENDMENTS TO RULES AND REGULATIONS REGARDING CHAPTER 60-20-400 PUBLIC SCHOOL SYSTEM RULES AND REGULATIONS**

**PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System (PSS) finds that:

**INTENDED ACTION TO ADOPT THESE PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System intends to adopt as permanent regulations the attached Proposed Regulations, pursuant to the procedures of the Administrative Procedure Act, 1 CMC § 9104(a). The Regulations would become effective ten (10) days after adoption and publication in the Commonwealth Register. (1 CMC § 9105(b))

**AUTHORITY:** The proposed amendments to PSS regulations are promulgated pursuant to the Board's authority as provided by Article XV of the CNMI Constitution, Public Law 6-10 and the CNMI Administrative Procedures Act.

**THE TERMS AND SUBSTANCE:** The proposed amendment set forth to provide procedural guidelines for PSS § 60-20-400 Promotion and Graduation Requirements.

**THE SUBJECTS AND ISSUES INVOLVED:** The Proposed Regulation sets forth the regulations and procedures required for guidelines in the Promotion and Graduation requirements as it relates to changing credit requirement to prescriptive grade level requirement.

**DIRECTIONS FOR FILING AND PUBLICATION:** These Proposed Regulations shall be published in the Commonwealth Register in the section on proposed and newly adopted regulations. (1 CMC § 9102(a) (1) and posted in convenient places in the civic center and in local government offices in each senatorial district, both in English and in the principal vernacular. (1 CMC § 9104 (a) (1))

State Board of Education  
Telephone: (670) 237-3027  
Fax: (670) 664-3711

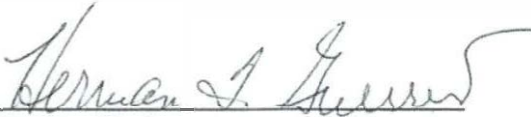
**STUDENTS FIRST**  
[www.cnmipss.org](http://www.cnmipss.org)

Commissioner of Education  
Telephone: (670) 237-3001/3061/3075  
Fax: (670) 664-3798

All CNMI Public Schools are accredited by the North Central Association Commission on Accreditation and School Improvement, an accreditation division of AdvanceED.

**TO PROVIDE COMMENTS:** All interested persons may examine the proposed amendments and submit written comments, positions, or statements for or against the proposed amendments to the Chairperson, State Board of Education, via mail at P.O. Box 501370 CK, Saipan, MP 96950, via phone at 670-237-3027 or via fax to 670-664-3711 within thirty (30) calendar days following the date of the publication in the Commonwealth Register of these amendments. (1 CMC § 9104(a) (2))

This regulation was approved at the State Board of Education Regular Meeting on August 26, 2014.

Submitted by:  9/26/14  
Herman T. Guerrero  
Chairman, State Board of Education  
Date

Received by:  10/15/14  
Esther S. Fleming  
Special Assistant for Administration  
Date

Filed and Recorded by:  10.17.2014  
Esther SN. Nesbitt  
Commonwealth Register  
Date

Pursuant to 1 CMC § 2153(e) (AG approval of regulations to be promulgated as to form) and 1 CMC § 9104 (a) (3) (obtain AG approval) the proposed regulations attached hereto have been reviewed and approved as to form and legal sufficiency by the CNMI Attorney General and shall be published (1 CMC § 2153(f) (publication of rules and regulations)).

Dated this 26th day of September, 2014.

  
Gil Brinbrich  
Attorney General

# COMMONWEALTH GI SANGKATTAN NA ISLAS MARIANAS SIHA

STATE BOARD OF EDUCATION  
Sisteman Eskuelan Publiku  
P. O. Box 501370, Saipan, MP 96950

## NUTISIAN PUBLIKU PUT I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA NI MANMA'AMENDA PARA I AREKLAMENTU YAN REGULASION SIHA SIGUN I KAPITULU 60-20-400 NA AREKLAMENTU YAN REGULASION SIHA GI SISTEMAN ESKUELAN PUBLIKU

**I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Sisteman Eskuelan Publiku ("PSS") ha sodda' na:

**I AKSION NI MA'INTENSIONA PARA U MA'ADAPTA ESTI I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Siha, i Sisteman Eskuelan Publiku ("PSS") ha intensiona para u adapta kumu petmanienti na regulasion siha ni mañechettun i Manmaproponi na Regulasion siha, sigun gi manera siha gi Aktun Administrative Procedures, 1 CMC § 9104(a). I Regulasion siha para u ifektibu gi halum dies(10) dihas dispues di adaptasion yan publikasion gi halum i Rehistran Commonwealth. (1 CMC § 9105(b))

**ATURIDAT:** I manmaproponi na amendasion siha para i PSS na regulasion manmacho'gui sigun gi aturidat i Kuetpu kumu mapribeniyi ginin i Attikulu XV gi Konstitusion CNMI, Lai Publiku 6-10 yan i Aktun i CNMI Administrative Procedures.

**I TEMA YAN SUSTANSIAN I PALABRA SIHA:** I manmaproponi na amendasion ni mapega mo'na para u pribeninyi giniha siha para i PSS §60-20-400 gi Dinimandan Promotion yan Graduation siha.

**I SUHETU NI MASUMARIA YAN ASUNTU NI TINEKKA SIHA:** I Manmaproponi na Regulasion mapega mo'na i regulasion yan manera siha ni dinimanda para i giniha siha gi halum i Dinimandan Promotion yan Graduation siha kumu tinetekka i dinimandan tinilaikan credit para i prescriptive grade level na dinimanda.

**DIREKSION PARA U MAPO'LU YAN PUBLIKASION:** Esti i Manmaproponi na Regulasion siha debi na u mapublika gi halum i Rehistran Commonwealth gi seksiona ni manmaproponi yan nuebu na ma'adapta na regulasion siha 1 CMC § 9102 (a) (1) yan mapega gi halum i kumbenienti na lugat siha gi halum ufisinan gubietnamentu gi kada distritun senadot, parehu English yan i dos na lingguahin natibu. (1 CMC § 9104(a) (1))

**PARA U MAPRIBENIYI OPIÑON SIHA:** Todu maninterisao na petsona sifa ma'eksamina i manmaproponi na amendasion siha yan u mana'halum i tinigi' imfotmasion, pusion, pat inaksepta para pat kinentran i manmaproponi na amendasion siha guatu gi Kabiseyu, State Board of Education, via mail gi P.O. Box 501370 CK, Saipan, MP 96950, pat tilifon gi 670- 237-3027 pat fax 670-664-3711 gi halum i trenta(30) dihas ni tinattitiyi ni fetchan kalendariu yan gi fetchan publikasion gi halum Rehistran Commonwealth gi esti na amendasion siha. (1 CMC § 9104(a) (2))



Esti na regulasion ma'apueba gi Huntan i State Board of Education gi Agostu 26, 2014.

Nina'håium as:   
Herman T. Guerrero  
Kabesityu, State Board of Education

10/9/14  
Fetcha

Rinisibi as:   
Esther S. Fleming  
Espisiåt Na Ayudånti Para I Atministrasion

10/10/14  
Fetcha

Pine'iu yan  
Ninota as:   
Esther SN. Nesbitt  
Rehistran Commonwealth

10.14.2014  
Fetcha

Sigun i 1 CMC § 2153(e) (Inapueba i regulasion siha ni Abugådu Heneråt ni para u macho'gui kumu fotma) yan 1 CMC § 9104(a) (3) (hentan inapueban Abugådu Heneråt) i manmaproponi na regulasion siha ni mañechettun guini ni manmaribisa yan manma'apueba kumu fotma yan sufisienti ligåt ginin i CNMI Abugådu Heneråt yan debi na u mapupblika, 1 CMC § 2153(f) (publikasion i areklamentu yan regulasion siha).

Mafetcha guini gi diha 26th di Septembri, 2014.

  
Gil Brinbrich  
Abugådu Heneråt

**ARONGORONGOL TOULAP REL POMMOL ALLÉGH  
IGHA E BWE LIWELL ALLÉGH REL CHAPTER 60-20-400  
ALLÉGHÚL ME MWÓGHUTUGHÚTÚL PUBLIC SCHOOL SYSTEM**

**POMMOL ALLÉGH:** Sángi Commonwealth lóll Marianas me Téé kka Efáng, Public School System (PSS) re schuungi bwe:

**MÁNGEMÁNGIL MWÓGHUTUGHÚT BWE RE BWE ADAPTÁALI ALLÉGH:**

Commonwealth lóll Marianas me Téé kka Efáng Public School System re mángemángil re bwe adaptáali bwe e bwe llégh ló allégh kka e appaasch long bwe allégh, sángi mwóghutughútúl Administrative Procedure Act, 1CMC §9104(a). Allégh kka e bwe buung ló lóll seigh (10) ráll mwiril yaar adaptáali me akkatééwowul me rel Commonwealth Register. (1CMC §9105(b)).

**BWÁNGIL:** Pommol liwell ngáli PSS Regulations nge re arongowow sángi lemelemil Board iye e iischitiw rel Article XV rel CNMI Constitution, Public Law 6-10 me CNMI Administrative Procedure Act.

**KKAPASAL ME AWEWEL:** Pommol lliwel kka e fféer-tiw nge e bwe ayoorá mwóghutughútúl me kkapasal ngáli PSS § 60-20-400 Promotion and Graduation Requirements.

**KKAPASAL ME ÓUTOL:** Pommol allégh kkal nge e bwe ayoorá mwóghutughútúl me kkapasal ngáli allégh me mwóghutughútúl igha e titingóór sángi mwóghutughútúl rel Promotion me Graduation requirements igha re aweewe fengál rel liwellil credit requirements rel prescriptive grade level requirements.

**AFALAFAL REEL AMWEELIL ME ARONGOWOOWUL:** Pommol allégh kkaal nge re bwe akkatééwow me rel Commonwealth Register me leyil tálil pommol me allégh mill ffé kka re adaptáalil bwe allégh. (1CMC § 9102 (a) (1) nge e bwe appasch tá me civic center me bwulasiyol gobetnameento lóll senatorial districts, nge re bwe seláti rel English, Remaraalis me Refaluwasch. (1CMC § 9104 (a) (1))

**ATTOOTOLONGOL MÁNGEMÁNG:** Re arongoowow reer toulap bwe re bwe amweeri pommol lliwel kkaal me re bwe akkafang long me ngáre bwughi ló rel Chairperson, State Board of Education , via mail P.O. Box 501370 CK, Saipan MP, 96950, via phone rel (670) 237-3027, ngáre via fax rel (670) 664-3711 yaar mángemáng, kkapas, me angiingi, ngáre re tepang me igha re se tepang rel pommol lliwel kkaal lóll eliigh (30) ráll mwirill yaal akkatééwow me rel Commonwealth Register rel liwell kkaal. (1 CMC § 9104(a)(2)).

Allégh yel nge a buung ló sángi State Board of Education Regular Meetings wól Agosto 26, 2014.

Isáliiyallong: Herman T. Guerrero  
Herman T. Guerrero,  
Chairman, State Board of Education

10/9/14  
Ráil

Aramas ye: Esther S. Fleming  
E bwughi Esther S. Fleming  
Special Assistant for Administration

10/10/14  
Ráil

File me  
Rekoodliiyal: Esther SN. Nesbitt  
Esther SN. Nesbitt  
Commonwealth Register

10.14.2014  
Ráil

Sáangi 1 CMC § 2153(e) (Allégh kkaal e bwe lléghló sáangi AG bwe e fil rel fféeruúl) me 1 CMC § 9104 (a)(3) (mwiir sáangi yaar llégh ló me AG) rel pommol allégh ye re aschuulong bwe ra takkal amweeri fiischiy, me llégh ló fféerúl me legal sufficiency sáangi CNMI Attorney General me e bwe le attotoowow, 1 CMC § 2153(f) (Arongowowul allégh me mwóghutughút).

E aghikkila-tiw 26th ráil ye wól Settembre, 2104.

Brian Birnrich  
BRIAN BIRNBRICH  
Sóubwungúl Allégh Lapalap

**§60-20-434 Promotion and Graduation Requirements**

A student shall be promoted to the next higher grade level when he/she meets the minimum requirements as established by the Commonwealth Standards and Benchmarks as outlined in the policies and regulations regarding instruction and curriculum.

<b>Subject</b>	<b>6<sup>th</sup></b>	<b>7<sup>th</sup></b>	<b>8<sup>th</sup></b>
<p>English Language Arts *English Language Arts in grades 6<sup>th</sup>, 7<sup>th</sup> &amp; 8<sup>th</sup> grade integrate literature, informational text, foundation skills, writing, speaking &amp; listening as outlined in the Common Core. The standards are similar from one grade to the next, but become more rigorous in terms of the tasks.</p>	<p>Language Arts 1  *Core Emphasis: The information is too large. Please hold Ctrl + Click to see the hyperlink.  <a href="http://www.corestandards.org/ELA-Literacy/RL/6">http://www.corestandards.org/ELA-Literacy/RL/6</a></p>	<p>Language Arts 2  *Core Emphasis: The information is too large. Please hold Ctrl + Click to see the hyperlink.  <a href="http://www.corestandards.org/ELA-Literacy/RL/7">http://www.corestandards.org/ELA-Literacy/RL/7</a></p>	<p>Language Arts 3  *Core Emphasis: The information is too large. Please hold Ctrl + Click to see the hyperlink.  <a href="http://www.corestandards.org/ELA-Literacy/RL/8">http://www.corestandards.org/ELA-Literacy/RL/8</a></p>
<p>Mathematics *Mathematic standards in grade 6<sup>th</sup>, 7<sup>th</sup> &amp; 8<sup>th</sup> in the Common Core are integrated. For example, there isn't a distinction between Algebra and Pre-Algebra or Geometry. Rather, the standards</p>	<p>Mathematics I <b>(1)</b> connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; <b>(2)</b> completing understanding of division of fractions and extending the</p>	<p>Mathematics II <b>(1)</b> developing understanding of and applying proportional relationships; <b>(2)</b> developing understanding of operations with rational numbers and working with expressions and linear equations;</p>	<p>Mathematics III <b>(1)</b> developing understanding of and applying proportional relationships; <b>(2)</b> developing understanding of operations with rational numbers and working with expressions and linear equations;</p>

<p>address components of each umbrella progressively. With each grade, more concepts from different components of math are added and tasks that draw correlations between the components address the integration and rigor.</p>	<p>notion of number to the system of rational numbers, which includes negative numbers;  <b>(3)</b> writing, interpreting, and using expressions and equations; and <b>(4)</b> developing understanding of statistical thinking</p>	<p><b>(3)</b> solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and <b>(4)</b> drawing inferences about populations based on samples.</p>	<p><b>(3)</b> solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and <b>(4)</b> drawing inferences about populations based on samples.</p>
<p>Science  *Earth &amp; Space, Life and Physical Sciences, and Engineering will be taught with increasing depth and sophistication in each grade level</p>	<p>Science I  (1) Earth &amp; Space Science: Earth systems; Weather &amp; Climate; Human Impacts on the Environment  (2) Life Science: Genetics; Growth, Develop &amp; Reproduction of organisms  (3) Physical Science: Energy; Waves &amp; Electromagnetic Radiation  (4) Engineering Design</p>	<p>Science II  (1) Earth &amp; Space Science: History of Earth; Earth systems; Human Impacts on the Environment  (2) Life Science: Ecosystems  (3) Physical Science: Matter; Chemical Reactions  (4) Engineering Design</p>	<p>Science III  (1) Earth &amp; Space Science: History of Earth; Earth systems; Human Impacts on the Environment  (2) Life Science: Genetics; Natural Selection  (3) Physical Science: Forces &amp; Interaction; Waves &amp; Electromagnetic Radiation  (4) Engineering Design</p>
<p>Social Studies  *The CNMI has local standard for Social Students. These standards regulate the course of</p>	<p>Pacific Regional History  Students will explore the history of the pacific Oceania region and draw correlations to the</p>	<p>World History, Civilizations &amp; Geography  World physical and cultural terms and geographic features and world chronological</p>	<p>Civics &amp; Economics  Values and principals of American Democracy and the nature and role of government and citizenship.</p>

student specific to each grade level.	significance of the CNMI.	events and their relationships	
<p>Foreign Language *In the both the 1. Communication - Interpersonal, Interpretive, and Presentational 2. Cultures - Practices and Perspectives, and Products and Perspectives 3. Connections - Knowledge of Other Disciplines and distinctive Viewpoints 4. Comparisons - Nature of Language and Culture 5. Family and Community - Beyond the School Setting and Life-long Learners</p>	<p>Chamorro/ Carolinian Language Heritage Studies I Linguistic Comparison: Compare word roots to determine word meaning and address cultural investigation as well as practice in speaking, listening, &amp; writing in Chamorro or Carolinian.</p>	<p>Chamorro/ Carolinian Language Heritage Studies II Linguistic Comparison: Identify prefixes and suffixes to determine word meanings and identify and discuss less familiar cognates and sentence structure comparisons to improve language skills; additionally, student will continue to investigate Chamorro or Carolinian mores and continue practicing speaking, listening, and writing in either language.</p>	<p>Chamorro/ Carolinian Language Heritage Studies III Linguistic Comparison: Identify and discuss less familiar cognates and sentence and structure comparisons to improve language skills. Student will continue to discuss the cultural values and mores and practice reading, writing, and speaking in Chamorro or Carolinian.</p>
<p>Physical &amp; Health Education (1 semester) Student will explore movement, health and wellness, physical fitness, explore personal and social</p>	<p>Physical &amp; Health Education I (1 semester) Student will explore movement, health and wellness, physical fitness, explore personal and social</p>	<p>Physical &amp; Health Education II (1 semester) In order to continue to promote health and wellness student will continue to explore movement, health and</p>	<p>Physical &amp; Health Education III (1 semester) In order to continue to promote health and wellness, student will explore movement, health and wellness, physical fitness;</p>

<p>behaviors and interactions. The curriculum will address healthy lifestyles practices that address adolescent development.</p>	<p>behaviors and interactions. The curriculum will address healthy lifestyles practices that address adolescent development.</p>	<p>wellness, physical fitness, explore personal and social behaviors and interactions. The curriculum will address healthy lifestyles practices that address adolescent development.</p>	<p>explore personal and social behaviors and interactions. The curriculum will address healthy lifestyles practices that address adolescent development.</p>
<p>Computer Literacy (1 semester) *In order to address the technology standards, the recommendation is to have student complete two years of course work in computer literacy to address the 6 technology standards. Additionally, the recommendation is to have student complete this course work prior to the 8<sup>th</sup> grade.</p>	<p>Computer Literacy I (1 semester) *The essential goal of CNMI PSS Technology Plan is founded on improving student achievement through the use of technology. By the year 2015, every student in the CNMI PSS will achieve technology literacy by being able to use computers and other technology to improve learning, productivity, and performance across all content areas. The objective is to have 95% of 8<sup>th</sup> grade students meeting or exceeding standards for technology literacy.</p>	<p>Computer Literacy II (1 semester) *The essential goal of CNMI PSS Technology Plan is founded on improving student achievement through the use of technology. By the year 2015, every student in the CNMI PSS will achieve technology literacy by being able to use computers and other technology to improve learning, productivity, and performance across all content areas. The objective is to have 95% of 8<sup>th</sup> grade students meeting or exceeding standards for technology literacy.</p> <p>Students will demonstrate developmentally appropriate</p>	<p>Computer Literacy III (1 semester) *The essential goal of CNMI PSS Technology Plan is founded on improving student achievement through the use of technology. By the year 2015, every student in the CNMI PSS will achieve technology literacy by being able to use computers and other technology to improve learning, productivity, and performance across all content areas. The objective is to have 95% of 8<sup>th</sup> grade students meeting or exceeding standards for technology literacy.</p> <p>Students will demonstrate developmentally appropriate</p>

	Students will demonstrate developmentally appropriate technology operations and concepts, use of basic applications and tools, use of research tools, ability to use telecommunications, use of technology in problem solving and decision making skills, and knowledge of social, ethical, and human issues.	technology operations and concepts, use of basic applications and tools, use of research tools, ability to use telecommunications, use of technology in problem solving and decision making skills, and knowledge of social, ethical, and human issues.	technology operations and concepts, use of basic applications and tools, use of research tools, ability to use telecommunications, use of technology in problem solving and decision making skills, and knowledge of social, ethical, and human issues.
<p>Career and Technical Education Program (1 semester)</p> <p>Students will explore career and workforce related subjects. Additionally, they will be given the opportunity to learn and apply successful professional and vocational practices.</p>	<p>Must complete 1 semester College and Career Technical Courses per year in either one of the following courses:</p> <ul style="list-style-type: none"> <li>○ Leadership Corps</li> <li>○ Family and Consumer Science</li> <li>○ Architecture and Construction</li> <li>○ Business Education</li> <li>○ Introduction to College</li> <li>○ Career Exploration</li> </ul>		
<p>Fine Arts (1 semester)</p> <p>Student will be given an</p>	<p>Must complete a 1 semester of Fine Arts per year in the either one of the following courses:</p> <ul style="list-style-type: none"> <li>○ Performing Arts</li> <li>○ Integrated Art</li> <li>○ Music</li> </ul>		



<p>opportunity to explore the visual and performing arts, music, graphic design, and other artistic mediums where available.</p>	<ul style="list-style-type: none"><li>○ Graphic Design</li></ul>
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# COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

STATE BOARD OF EDUCATION  
PUBLIC SCHOOL SYSTEM  
P.O. BOX 501370  
SAIPAN, MP 96950



*Herman T. Guerrero*  
**Chairman**

*Lucia I. Blanco-Maranta, Esq*  
**Vice-Chairwoman**

*Janice A. Tenorio*  
**Secretary/Treasurer**

**Members**  
*Marilyn S. Ada*  
*Denise R. King*

**Non Public School Rep.**  
*Gulvin S. DeLeon Guerrero*

**Student Representative**  
*Loris Dee Ada Hocog*

**Teacher Representative**

*Commissioner of Education*  
**Rita A. Sablan, Ed.D.**  
*cne.rusa@cnmipss.org*

## **PUBLIC NOTICE OF PROPOSED RULES AND REGULATIONS WHICH ARE AMENDMENTS TO RULES AND REGULATIONS REGARDING CHAPTER 60-20-700 PUBLIC SCHOOL SYSTEM RULES AND REGULATIONS**

**PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System (PSS) finds that:

**INTENDED ACTION TO ADOPT THESE PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System intends to adopt as permanent regulations the attached Proposed Regulations, pursuant to the procedures of the Administrative Procedure Act, 1 CMC § 9104(a). The Regulations would become effective ten (10) days after adoption and publication in the Commonwealth Register. (1 CMC § 9105(b))

**AUTHORITY:** The proposed amendments to PSS regulations are promulgated pursuant to the Board's authority as provided by Article XV of the CNMI Constitution, Public Law 6-10 and the CNMI Administrative Procedures Act.

**THE TERMS AND SUBSTANCE:** The proposed amendment set forth to provide procedural guidelines for PSS §60-20-700 Financial Operation.

**THE SUBJECTS AND ISSUES INVOLVED:** The Proposed Regulation sets forth the regulations and procedures required for guidelines in the travel regulations as they deal with modification of an itinerary, per diem rates, and transportation rates.

**DIRECTIONS FOR FILING AND PUBLICATION:** These Proposed Regulations shall be published in the Commonwealth Register in the section on proposed and newly adopted regulations. (1 CMC § 9102(a) (1) and posted in convenient places in the civic center and in local government offices in each senatorial district, both in English and in the principal vernacular. (1 CMC § 9104 (a) (1))


*State Board of Education*  
Telephone: (670) 237-3027  
Fax: (670) 664-3711

**STUDENTS FIRST**  
*www.cnmipss.org*

*Commissioner of Education*  
Telephone: (670) 237-3001/ 3061/ 3075  
Fax: (670) 664-3798

**TO PROVIDE COMMENTS:** All interested persons may examine the proposed amendments and submit written comments, positions, or statements for or against the proposed amendments to the Chairperson, State Board of Education, via mail at P.O. Box 501370 CK, Saipan, MP 96950, via phone at 670-237-3027 or via fax to 670-664-3711 within thirty (30) calendar days following the date of the publication in the Commonwealth Register of these amendments. (1 CMC § 9104(a) (2))

This regulation was approved at the State Board of Education Regular Meeting on August 26, 2014.

Submitted by:  9/25/14  
Herman T. Guerrero Date  
Chairman, State Board of Education

Received by:  10/15/14  
Esther S. Fleming Date  
Special Assistant for Administration

Filed and Recorded by:  10.14.2014  
Esther SN. Nesbitt Date  
Commonwealth Register

Pursuant to 1 CMC § 2153(e) (AG approval of regulations to be promulgated as to form) and 1 CMC § 9104 (a) (3) (obtain AG approval) the proposed regulations attached hereto have been reviewed and approved as to form and legal sufficiency by the CNMI Attorney General and shall be published (1 CMC § 2153(f) (publication of rules and regulations)).

Dated this 26th day of September, 2014.

  
Gil Brinbrich  
Attorney General

# COMMONWEALTH GI SANGKATTAN NA ISLAS MARIANAS SIHA

STATE BOARD OF EDUCATION  
Sisteman Eskuelan Pupbliku  
P. O. ~~SAIPAN, MP 96950~~

## NUTISIAN PUBLIKU PUT I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA NI MANMA'AMENDA PARA I AREKLAMENTU YAN REGULASION SIHA SIGUN I KAPITULU 60-20-700 NA AREKLAMENTU YAN REGULASION SIHA GI SISTEMAN ESKUELAN PUBLIKU

**I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Sisteman Eskuelan Pupbliku ("PSS") ha sodda' na:

**I AKSION NI MA'INTENSIONA PARA U MA'ADAPTA ESTI I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Siha, i Sisteman Eskuelan Pupbliku ("PSS") ha intensiona para u adapta kumu petmanienti na regulasion siha ni mañechettun i Manmaproponi na Regulasion siha, sigun gi manera siha gi Aktun Administrative Procedures, 1 CMC § 9104(a). I Regulasion siha para u ifektibu gi halum dies(10) dihas dispues di adaptasion yan publikasion gi halum i Rehistran Commonwealth. (1 CMC § 9105(b))

**ATURIDAT:** I manmaproponi na amendasion siha para i PSS na regulasion manmacho'gui sigun gi aturidat i Kuetpu kumu mapribeniyi ginin i Attikulu XV gi Konstitusion CNMI, Lai Pupbliku 6-10 yan i Aktun i CNMI Administrative Procedures.

**I TEMA YAN SUSTANSIAN I PALABRA SIHA:** I manmaproponi na amendasion ni mapega mo'na para u pribeniyi giniha siha para i PSS §60-20-700 gi Financial Operation.

**I SUHETU NI MASUMARIA YAN ASUNTU NI TINEKKA SIHA:** I Manmaproponi na Regulasion mapega mo'na i regulasion yan manera siha ni dinimanda para i giniha siha gi regulasion travel siha kumu manguntrata yan i modification i itinerary, per diem rates yan transportation rates.

**DIREKSION PARA U MAPO'LU YAN PUBLIKASION:** Esti i Manmaproponi na Regulasion siha debi na u mapuplika gi halum i Rehistran Commonwealth gi seksiona ni manmaproponi yan nuebu na ma'adapta na regulasion siha 1 CMC § 9102 (a) (1) yan mapega gi halum i kumbenienti na lugat siha gi halum ufisinan gubietnamentu gi kada distritun senadot, parehu English yan i dos na lingguahin natibu. (1 CMC § 9104(a) (1))

**PARA U MAPRIBENIYI OPIÑON SIHA:** Todu maninterisao na petsona siña ma'eksamina i manmaproponi na amendasion siha yan u mana'halum i tinigi' imfotmasion, pusion, pat inaksepta para pat kinentran i manmaproponi na amendasion siha guatu gi Kabiseyu, State Board of Education, via mail gi P.O. Box 501370 CK, Saipan, MP 96950, pat tilifon gi 670- 237-3027 pat fax 670-664-3711 gi halum i trenta(30) dihas ni tinattitiyi ni fetchan kalendariu yan gi fetchan publikasion gi halum Rehistran Commonwealth gi esti na amendasion siha. (1 CMC § 9104(a) (2))

Esti na regulasion ma'apueba gi Huntan i State Board of Education gi Agostu 26, 2014.

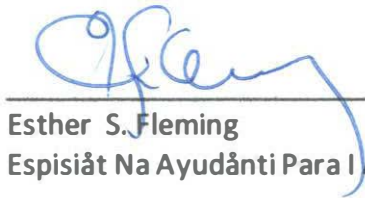
Nina'hålum as:



Herman T. Guerrero  
Kabasiyu, State Board of Education

10/9/14  
Fetcha

Rinisibi as:



Esther S. Fleming  
Espisiât Na Ayudânti Para I Atministrasion

10/21/14  
Fetcha

Pine'lu yan  
Ninota as:



Esther SN. Nesbitt  
Rehistran Commonwealth

10.14.2014  
Fetcha

Sigun i 1 CMC § 2153(e) (Inapueba i regulasion siha ni Abugâdu Henerât ni para u macho'gui kumu fotma) yan 1 CMC § 9104(a) (3) (hentan inapueban Abugâdu Henerât) i manmaproponi na regulasion siha ni mañechettun guini ni manmaribisa yan manma'apueba kumu fotma yan sufisienti ligât ginin i CNMI Abugâdu Henerât yan debi na u mapublika, 1 CMC § 2153(f) (puplikasion i areklamentu yan regulasion siha).

Mafetcha guini gi diha 26th di Septembri, 2014.



Gil Brinbrich  
Abugâdu Henerât

**ARONGORONGOL TOULAP REL POMMOL ALLÉGH  
IGHA E BWE LIWELL ALLÉGH REL CHAPTER 60-20-700  
ALLÉGHÚL ME MWÓGHUTUGHÚTÚL PUBLIC SCHOOL SYSTEM**

**POMMOL ALLÉGH:** Sángi Commonwealth lóll Marianas me Téé kka Efáng, Public School System (PSS) re schuungi bwe:

**MÁNGEMÁNGIL MWÓGHUTUGHÚT BWE RE BWE ADAPTÁÁLI ALLÉGH:**

Commonwealth lóll Marianas me Téé kka Efáng Public School System re mángemángil re bwe adaptááli bwe e bwe llégh ló allégh kka e appaasch long bwe allégh, sángi mwóghutúghútúl Administrative Procedure Act, 1CMC §9104(a). Allégh kka e bwe bwuung ló lóll seigh (10) ráll mwiril yaar adaptááli me akkatééwowul me rel Commonwealth Register. (1CMC §9105(b)).

**BWÁNGIL:** Pommol liwell ngáli PSS Regualtions nge re arongowow sángi lemelemil Board iye e iischitiw rel Article XV rel CNMI Constitution, Public Law 6-10 me CNMI Administrative Procedure Act.

**KKAPASAL ME AWEEWEL:** Pommol lliwel kka e fféer-tiw nge e bwe ayoora mwóghutúghútúl me kkapasal ngáli PSS § 60-20-700 Financial Requirements.

**KKAPASAL ME ÓUTOL:** Pommol allégh kkal nge e bwe ayoora mwóghutúghútúl me kkapasal ngáli allégh me mwóghutúghútúl igha e titingóór sángi mwóghutúghútúl rel travel regulations igha re abwungobwung rel ghal liwellil itinerary, per diem rates, me transportation rates.

**AFALAFAL REEL AMWEELIL ME ARONGOWOOWUL:** Pommol allégh kkaal nge re bwe akkatééwow me rel Commonwealth Register me leyill tánil pommol me allégh mill ffé kka re adaptáánil bwe allégh. (1CMC § 9102 (a) (1) nge e bwe appasch tá me civic center me bwulasiyol gobetnameento lóll senatorial districts, nge re bwe seláti rel English, Remaraalis me Refaluwasch. (1CMC § 9104 (a) (1))

**ATTOOTOLONGOL MÁNGEMÁNG:** Re arongoowow reer toulap bwe re bwe amweeri pommol lliwel kkaal me re bwe akkafang long me ngáre bwughi ló rel Chairperson, State Board of Education , via mail P.O. Box 501370 CK, Saipan MP, 96950, via phone rel (670) 237-3027, ngáre via fax rel (670) 664-3711 yaar mángemáng, kkapas, me angiingi, ngáre re tepang me igha re se tepang rel pommol lliwel kkaal lóll eliigh (30) ráll mwirill yaal akkatééwow me rel Commonwealth Register rel liwell kkaal. (1 CMC § 9104(a)(2)).

Allégh yel nge e bwuung ló sángi State Board of Education Regular Meetings wól Agosto 26, 2014.

Isáliyallong: Herman T. Guerrero  
Herman T. Guerrero,  
Chairman, State Board of Education

10/9/14  
Ráll

Aramas ye: Esther S. Fleming  
E bwughi Esther S. Fleming  
Special Assistant for Administration

10/15/14  
Ráll

File me  
Rekoodliiyal: Esther SN. Nesbitt  
Esther SN. Nesbitt  
Commonwealth Register

10.14.2014  
Ráll

Sáangi 1 CMC § 2153(e) (Allégh kkaal e bwe lléghló sáangi AG bwe e fil rel fféeruúl) me 1 CMC § 9104 (a)(3) (mwiir sáangi yaar llégh ló me AG) rel pommol allégh ye re aschuulong bwe ra takkal amweeri fiischiy, me llégh ló fféerúl me legal sufficiency sáangi CNMI Attorney General me e bwe le attotoowow, 1 CMC § 2153(f) (Arongowowul allégh me mwóghutughút).

E aghikkila-tiw 26th wól ráll ye, lól Settembre, 2104.

Brian Birnrich  
BRIAN BIRNBRICH  
Sóubwungúl Allégh Lapalap

## **Part 700 Financial Operation**

### **§ 60-20-705(b) Financial Management; Advance Payment Procedures**

(b) Qualifying Purchase - Only purchase requisitions meeting the following criteria will be approved for prepayment:

- (1) The order must be for a vendor that requires prepayment in order to furnish good or services.
- (2) Before prepayment is issued, two (2) or more of the condition(s) listed below must be present:
  - (i) The vendor supplies a unique product or service and requires prepayment, and or;
  - (ii) All vendors from which quotes were obtained required prepayment, and or;
  - (iii) Because of prior outstanding obligation of PSS, vendor requires PSS to issue payments before shipment of goods can delivered, and or;
  - (iv) The vendor selected submitted the lowest price.

### **§ 60-20-720(d) (3) Accounting and Reporting; Travel Outside the CNMI**

(3) Group Travel: Payment for ground transportation expenses can be handled in either of the following ways if the group is in agreement. If the group cannot agree then the default shall be (i) below.

- (i) Group travel without vehicle rental: If the group elects to not rent a car then each individual member of the group shall be given a \$30 per diem for such transportation. The travel voucher must show the total ground transportation received.
- (ii) Group travel with vehicle rental: In the event the group elects to rent a car, a ground transportation per diem shall not be given to any traveler. Instead, the designated driver in the group shall receive an advance to pay for the cost of the vehicle rental. No other person will receive any funds for transportation expenses. The designated driver who receives payment from PSS for the rental shall be responsible for renting the vehicle or be liable for the reimbursement of the funds to PSS. Receipts must be submitted to PSS to certify the rental. Actual cost of the rental is allowable



and the difference between the funds advanced and the actual cost will be reconciled upon submission of the travel voucher.

(iii) In the event that the travel in question involves students, a “group” shall consist of a chaperone and the children she is immediately responsible for. More than one “group” may be present on any one trip.

(5) Travel routes other than what was authorized shall be allowed when there is no additional expense incurred by PSS.

§ 60-20-721(e) (1) Accounting and Reporting; Travel Within the CNMI

(1) Per diem: Per diem rates shall be the federal per diem rates for the location traveled to, and shall be the standard form of commute reimbursement for PSS commuters unless otherwise requested and authorized. It is assumed that the per diem rate will cover all expenses other than airplane transportation. *Per diem rates, instead of stipend rates, shall be the form of reimbursement for overnight commute travel within the CNMI.*



# COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

STATE BOARD OF EDUCATION  
PUBLIC SCHOOL SYSTEM  
P.O. BOX 501370  
SAIPAN, MP 96950



Herman T. Guerrero  
*Chairman*

Lucia L. Blanco-Maratta, Esq.  
*Vice-Chairwoman*

Janice A. Tenorio  
*Secretary/Treasurer*

**Members**  
Marylou S. Ada  
Denise R. King

*Non Public School Rep.*  
Galvin S. DeLeon Guerrero

*Student Representative*  
Lorin Dee Ada Hucog

*Teacher Representative*

*Commissioner of Education*  
Rita A. Sablan, Ed.D.  
coe.ras@cnmipss.org

## **PUBLIC NOTICE OF PROPOSED RULES AND REGULATIONS WHICH ARE AMENDMENTS TO RULES AND REGULATIONS REGARDING CHAPTER 60-20-900 PUBLIC SCHOOL SYSTEM RULES AND REGULATIONS**

**PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System (PSS) finds that:

**INTENDED ACTION TO ADOPT THESE PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System intends to adopt as permanent regulations the attached Proposed Regulations, pursuant to the procedures of the Administrative Procedure Act, 1 CMC § 9104(a). The Regulations would become effective ten (10) days after adoption and publication in the Commonwealth Register. (1 CMC § 9105(b))

**AUTHORITY:** The proposed amendments to PSS regulations are promulgated pursuant to the Board's authority as provided by Article XV of the CNMI Constitution, Public Law 6-10 and the CNMI Administrative Procedures Act.

**THE TERMS AND SUBSTANCE:** The proposed amendment set forth to provide procedural guidelines for PSS §60-20-905 Retention of Records/Audits.

**THE SUBJECTS AND ISSUES INVOLVED:** The Proposed Regulation sets forth the regulations and procedures required for guidelines in the Other Requirements as it relates to records retention.

**DIRECTIONS FOR FILING AND PUBLICATION:** These Proposed Regulations shall be published in the Commonwealth Register in the section on proposed and newly adopted regulations. (1 CMC § 9102(a) (1) and posted in convenient places in the civic center and in local government offices in each senatorial district, both in English and in the principal vernacular. (1 CMC § 9104 (a) (1))

State Board of Education  
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Fax: (670) 664-3711

**STUDENTS FIRST**  
www.cnmipss.org

Commissioner of Education  
Telephone: (670) 237-3001/3061/3075  
Fax: (670) 664-3798

**TO PROVIDE COMMENTS:** All interested persons may examine the proposed amendments and submit written comments, positions, or statements for or against the proposed amendments to the Chairperson, State Board of Education, via mail at P.O. Box 501370 CK, Saipan, MP 96950, via phone at 670-237-3027 or via fax to 670-664-3711 within thirty (30) calendar days following the date of the publication in the Commonwealth Register of these amendments. (1 CMC § 9104(a) (2))

This regulation was approved at the State Board of Education Regular Meeting on August 26, 2014.

Submitted by: Herman T. Guerrero 9/25/14  
Herman T. Guerrero Date  
Chairman, State Board of Education

Received by: Esther S. Fleming 10/15/14  
Esther S. Fleming Date  
Special Assistant for Administration

Filed and Recorded by: Esther SN. Nesbitt 10.14.2014  
Esther SN. Nesbitt Date  
Commonwealth Register

Pursuant to 1 CMC § 2153(e) (AG approval of regulations to be promulgated as to form) and 1 CMC § 9104 (a) (3) (obtain AG approval) the proposed regulations attached hereto have been reviewed and approved as to form and legal sufficiency by the CNMI Attorney General and shall be published (1 CMC § 2153(f) (publication of rules and regulations)).

Dated this 26th day of September, 2014.

Gil Brinbrich  
Gil Brinbrich  
Attorney General

# COMMONWEALTH GI SANGKATTAN NA ISLAS MARIANAS SIHA

STATE BOARD OF EDUCATION  
Sisteman Eskuelan Publiku  
P. O. BOX 501370 SAIPAN, MP 96950

## NUTISIAN PUBLIKU PUT I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA NI MANMA'AMENDA PARA I AREKLAMENTU YAN REGULASION SIHA SIGUN I KAPITULU 60-20-900 NA AREKLAMENTU YAN REGULASION SIHA GI SISTEMAN ESKUELAN PUBLIKU

**I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Sisteman Eskuelan Publiku ("PSS") ha sodda' na:

**I AKSION NI MA'INTENSIONA PARA U MA'ADAPTA ESTI I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Siha, i Sisteman Eskuelan Publiku ("PSS") ha intensiona para u adapta kumu petmanienti na regulasion siha ni maflechettun i Manmaproponi na Regulasion siha, sigun gi manera siha gi Aktun Administrative Procedures, 1 CMC § 9104(a). I Regulasion siha para u ifektibu gi halum dies(10) dihas dispues di adaptasion yan publikasion gi halum i Rehistran Commonwealth. (1 CMC § 9105(b))

**ATURIDAT:** I manmaproponi na amendasion siha para i PSS na regulasion manmacho'gui sigun gi aturidat i Kuetpu kumu mapribeniyi ginin i Attikulu XV gi Konstitusion CNMI, Lai Publiku 6-10 yan i Aktun i CNMI Administrative Procedures.

**I TEMA YAN SUSTANSIAN I PALABRA SIHA:** I manmaproponi na amendasion ni mapega mo'na para u pribeniyi giniha siha para i PSS §60-20-905 gi Retention of Records/Audits.

**I SUHETU NI MASUMARIA YAN ASUNTU NI TINEKKA SIHA:** I Manmaproponi na Regulasion mapega mo'na i regulasion yan manera siha ni dinimanda para i giniha siha gi halum i Ottru Dinimanda siha kumu tinetekka para records retension.

**DIREKSION PARA U MAPO'LU YAN PUBLIKASION:** Esti i Manmaproponi na Regulasion siha debi na u mapublika gi halum i Rehistran Commonwealth gi seksiona ni manmaproponi yan nuebu na ma'adapta na regulasion siha 1 CMC § 9102 (a) (1) yan mapega gi halum i kumbenienti na lugat siha gi halum ufisinan gubietnamentu gi kada distritun senadot, parehu English yan i dos na lingguahin natibu. (1 CMC § 9104(a) (1))

**PARA U MAPRIBENIYI UPIÑON SIHA:** Todu maninterisao na petsona siha ma'eksamina i manmaproponi na amendasion siha yan u mana'halum i tinigi' imfotmasion, pusion, pat inaksepta para pat kinentran i manmaproponi na amendasion siha guatu gi Kabiseyu, State Board of Education, via mail gi P.O. Box 501370 CK, Saipan, MP 96950, pat tilifon gi 670- 237-3027 pat fax 670-664-3711 gi halum i trenta(30) dihas ni tinattitiyi ni fetchan kalendariu yan gi fetchan publikasion gi halum Rehistran Commonwealth gi esti na amendasion siha. (1 CMC § 9104(a) (2))

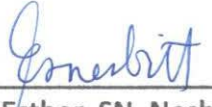
Esti na regulasion ma'apueba gi Huntan i State Board of Education gi Agostu 26, 2014.

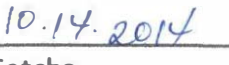
Nina'hálum as:   
Herman T. Guerrero  
Kabesiya, State Board of Education

Fetcha

Rinisibi as:   
Esther S. Fleming  
Espisiát Na Ayudánte Para l Atministrasion

Fetcha 

Pine'lu yan  
Ninota as:   
Esther SN. Nesbitt  
Rehistran Commonwealth

Fetcha 

Sigun i 1 CMC § 2153(e) (Inapueba i regulasion siha ni Abugádu Henerát ni para u macho'gui kumu fotma) yan 1 CMC § 9104(a) (3) (hentan inapueban Abugádu Henerát) i manmaproponi na regulasion siha ni mañechettun guini ni manmaribisa yan manma'apueba kumu fotma yan sufisienti ligát ginin i CNMI Abugádu Henerát yan debi na u mapupblika, 1 CMC § 2153(f) (publikasion i areklamentu yan reguasion siha).

Mafetcha guini gi diha 26<sup>th</sup> di Septembri, 2014.

  
Gii Brinbrich  
Abugádu Henerát

**ARONGORONGOL TOULAP REL POMMOL ALLÉGH  
IGHA E BWE LIWELL ALLÉGH REL CHAPTER 60-20-900  
ALLÉGHÚL ME MWÓGHUTUGHÚTÚL PUBLIC SCHOOL SYSTEM**

**POMMOL ALLÉGH:** Sángi Commonwealth lóll Marianas me Téé kka Efáng, Public School System (PSS) re schuungi bwe:

**MÁNGEMÁNGIL MWÓGHUTUGHÚT BWE RE BWE ADAPTÁALI ALLÉGH:**

Commonwealth lóll Marianas me Téé kka Efáng Public School System re mángemángil re bwe adaptáali bwe e bwe llégh ló allégh kka e appaasch long bwe allégh, sángi mwóghutúghútúl Administrative Procedure Act, 1CMC §9104(a). Allégh kka e bwe bwung ló lóll seigh (10) ráll mwiril yaar adaptáali me akkatééwowul me rel Commonwealth Register. (1CMC §9105(b)).

**BWÁNGIL:** Pommol liwell ngáli PSS Regualtions nge re arongowow sángi lemelemil Board iye e iischitiw rel Article XV rel CNMI Constitution, Public Law 6-10 me CNMI Administrative Procedure Act.

**KKAPASAL ME AWEEWEL:** Pommol lliwel kka e fféer-tiw nge e bwe ayoora mwóghutúghútúl me kkapasal ngáli PSS § 60-20-905 Retention of Records/Audits.

**KKAPASAL ME ÓUTOL:** Pommol allégh kkal nge e bwe ayoora mwóghutúghútúl me kkapasal ngáli allégh me mwóghutúghútúl igha e titingóór sángi mwóghutúghútúl rel akkáaw mwóghutúghútúl igha re aweewe me records retention.

**AFALAFAL REEL AMWEELIL ME ARONGOWOOWUL:** Pommol allégh kkaal nge re bwe akkatééwow me rel Commonwealth Register me leyiiil tánil pommol me allégh mill ffé kka re adaptáalil bwe allégh. (1CMC § 9102 (a) (1) nge e bwe appasch tá me civic center me bwulasiyol gobetnameento lóll senatorial districts, nge re bwe seláti rel English, Remaraalis me Refaluwasch. (1CMC § 9104 (a) (1))

**ATTOOTOLONGOL MÁNGEMÁNG:** Re arongoowow reer toulap bwe re bwe amweeri pommol lliwel kkaal me re bwe akkafang long me ngáre bwughi ló rel Chairperson, State Board of Education , via mail P.O. Box 501370 CK, Saipan MP, 96950, via phone rel (670) 237-3027, ngáre via fax rel (670) 664-3711 yaar mángemáng, kkapas, me angiingi, ngáre re tepang me igha re se tepang rel pommol lliwel kkaal lóll eliigh (30) ráll mwirill yaal akkatééwow me rel Commonwealth Register rel liwell kkaal. (1 CMC § 9104(a)(2)).

Allégh yel nge e bwuung ló sángi State Board of Education Regular Meetings wól Agosto 26, 2014.

Isáliyallong: Herman T. Guerrero  
Herman T. Guerrero,  
Chairman, State Board of Education

10/9/14  
Ráll

Aramas ye: Esther S. Fleming  
E bwughi Esther S. Fleming  
Special Assistant for Administration

10/9/14  
Ráll

File me  
Rekoodliiyal: Esther SN. Nesbitt  
Esther SN. Nesbitt  
Commonwealth Register

10-14-2014  
Ráll

Sáangi 1 CMC § 2153(e) (Allégh kkaal e bwe lléghló sáangi AG bwe e fil rel fféeruúl) me 1 CMC § 9104 (a)(3) (mwiir sáangi yaar llégh ló me AG) rel pommol allégh ye re aschuulong bwe ra takkal amweeri fiischiy, me llégh ló fféerúl me legal sufficiency sáangi CNMI Attorney General me e bwe le attotoowow, 1 CMC § 2153(f) (Arongowowul allégh me mwóghutughút).

E aghikkila-tiw 26th ráll ye wól Settembre, 2104.

Brian Birnrich  
BRIAN BIRNBRICH  
Sóubwungúl Allégh Lapalap

**Part 900- Other Requirements**

**§ 60-20-905 Retention of Records/Audit**

(a) All financial records, *inclusive of electronically created or scanned documents*, of the PSS shall be retained until the completion and close of the audit for the fiscal year to which the records relate or until five (5) years after the completion of the last activity related to the record, whichever is longer, unless a longer period is provided for by law.

(b) All performance/program records, *inclusive of electronically created or scanned documents*, required by federal grants or by the PSS shall be retained for five (5) years after the last activity related to the record, unless a longer term is provided by law.





# COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS



STATE BOARD OF EDUCATION  
PUBLIC SCHOOL SYSTEM  
P.O. BOX 501370  
SAIPAN, MP 96950

Herman T. Guerrero  
Chairman

Lucia L. Blanco-Maratita, Esq.  
Vice-Chairwoman

Janice A. Teuorio  
Secretary/Treasurer

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Non Public School Rep.  
Galyon S. DeLeon Guerrero

Student Representative  
Lorita Dee Ada Hocog

Teacher Representative

Commissioner of Education  
Rita A. Sablan, Ed.D.  
coe.ra@a.cnmipss.org

## PUBLIC NOTICE OF PROPOSED RULES AND REGULATIONS WHICH ARE AMENDMENTS TO RULES AND REGULATIONS REGARDING CHAPTER 60-30.2 PUBLIC SCHOOL SYSTEM RULES AND REGULATIONS

**PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System (PSS) finds that:

**INTENDED ACTION TO ADOPT THESE PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System intends to adopt as permanent regulations the attached Proposed Regulations, pursuant to the procedures of the Administrative Procedure Act, 1 CMC § 9104(a). The Regulations would become effective ten (10) days after adoption and publication in the Commonwealth Register. (1 CMC § 9105(b))

**AUTHORITY:** The proposed amendments to PSS regulations are promulgated pursuant to the Board's authority as provided by Article XV of the CNMI Constitution, Public Law 6-10 and the CNMI Administrative Procedures Act.

**THE TERMS AND SUBSTANCE:** The proposed amendment set forth to provide procedural guidelines for PSS § 60-30.2-200 Certification.

**THE SUBJECTS AND ISSUES INVOLVED:** The Proposed Regulation sets forth the regulations and procedures required for guidelines in the Certification Process as it relates to teacher aide requirements.

**DIRECTIONS FOR FILING AND PUBLICATION:** These Proposed Regulations shall be published in the Commonwealth Register in the section on proposed and newly adopted regulations. (1 CMC § 9102(a) (1) and posted in convenient places in the civic center and in local government offices in each senatorial district, both in English and in the principal vernacular. (1 CMC § 9104 (a) (1))

State Board of Education  
Telephone: (670) 237-3027  
Fax: (670) 664-3711

STUDENTS FIRST  
www.cnmipss.org

Commissioner of Education  
Telephone: (670) 237-3001 / 3061 / 3075  
Fax: (670) 664-3798

\*All CNMI Public Schools are accredited by the North Central Association Commission on Accreditation and School Improvement, an accrediting division of AdvancED.

**TO PROVIDE COMMENTS:** All interested persons may examine the proposed amendments and submit written comments, positions, or statements for or against the proposed amendments to the Chairperson, State Board of Education, via mail at P.O. Box 501370 CK, Saipan, MP 96950, via phone at 670-237-3027 or via fax to 670-664-3711 within thirty (30) calendar days following the date of the publication in the Commonwealth Register of these amendments. (1 CMC § 9104(a) (2))

This regulation was approved at the State Board of Education Regular Meeting on August 26, 2014.

Submitted by: Herman T. Guerrero 9/26/14  
Herman T. Guerrero Date  
Chairman, State Board of Education

Received by: Esther S. Fleming 10/15/14  
Esther S. Fleming Date  
Special Assistant for Administration

Filed and Recorded by: Esnebitt 10.14.2014  
Esther SN. Nesbitt Date  
Commonwealth Register

Pursuant to 1 CMC § 2153(e) (AG approval of regulations to be promulgated as to form) and 1 CMC § 9104 (a) (3) (obtain AG approval) the proposed regulations attached hereto have been reviewed and approved as to form and legal sufficiency by the CNMI Attorney General and shall be published (1 CMC § 2153(f) (publication of rules and regulations)).

Dated this 26th day of September, 2014.

Gil Brinbrich  
Gil Brinbrich  
Attorney General

**ARONGORONGOL TOULAP REL POMMOL ALLÉGH  
IGHA E BWE LIWELL ALLÉGH REL CHAPTER 60-30.2  
ALLÉGHÚL ME MWÓGHUTUGHÚTÚL PUBLIC SCHOOL SYSTEM**

**POMMOL ALLÉGH:** Sángi Commonwealth lóll Marianas me Téé kka Efáng, Public School System (PSS) re schuungi bwe:

**MÁNGEMÁNGIL MWÓGHUTUGHÚT BWE RE BWE ADAPTÁALI ALLÉGH:**

Commonwealth lóll Marianas me Téé kka Efáng Public School System re mángemángil re bwe adaptáali bwe e bwe llégh ló allégh kka e appaasch long bwe allégh, sángi mwóghutúghútúl Administrative Procedure Act, 1CMC §9104(a). Allégh kka e bwe bwung ló lóll seigh (10) ráll mwiril yaar adaptáali me akkatééwowul me rel Commonwealth Register. (1CMC §9105(b)).

**BWÁNGIL:** Pommol liwell ngáli PSS Regualtions nge re arongowow sángi lemelemil Board iye e iischitiw rel Article XV rel CNMI Constitution, Public Law 6-10 me CNMI Administrative Procedure Act.

**KKAPASAL ME AWEEWEL:** Pommol lliwel kka e fféer-tiw nge e bwe ayoora mwóghutúghútúl me kkapasal ngáli PSS § 60-30.2-200 Certifications.

**KKAPASAL ME ÓUTOL:** Pommol allégh kkal nge e bwe ayoora mwóghutúghútúl me kkapasal ngáli allégh me mwóghutúghútúl igha e titingóór sángi mwóghutúghútúl rel Certification Process igha re abwungobwung me teacher aide requirements

**AFALAFAL REEL AMWEELIL ME ARONGOWOOWUL:** Pommol allégh kkaal nge re bwe akkatééwow merel Commonwealth Register me leyiil tálil pommol me allégh mill ffé kka re adaptáalil bwe allégh. (1CMC § 9102 (a) (1) nge e bwe appasch tá me civic center me bwulasiyol gobetnameento lóll senatorial districts, nge re bwe seláti rel English, Remaraalis me Refaluwasch. (1CMC § 9104 (a) (1))

**ATTOOTOLONGOL MÁNGEMÁNG:** Re arongoowow reer toulap bwe re bwe amweeri pommol lliwel kkaal me re bwe akkafang long me ngáre bwughi ló rel Chairperson, State Board of Education , via mail P.O. Box 501370 CK, Saipan MP, 96950, via phone rel (670) 237-3027, ngáre via fax rel (670) 664-3711 yaar mángemáng, kkapas, me angiingi, ngáre re tepang me igha re se tepang rel pommol lliwel kkaal lóll eliigh (30) ráll mwirill yaal akkatééwow me rel Commonwealth Register rel liwell kkaal. (1 CMC § 9104(a)(2)).

Allégh yel nge e bwuung ló sángi State Board of Education Regular Meetings wól Agosto 26, 2014.

Isáliiyallong: Herman T. Guerrero  
Herman T. Guerrero,  
Chairman, State Board of Education

10/9/14  
Ráll

Aramas ye: Esther S. Fleming  
E bwughi Esther S. Fleming  
Special Assistant for Administration

10/10/14  
Ráll

File me Esther SN. Nesbitt  
Rekoodliiyal: Esther SN. Nesbitt  
Commonwealth Register

10.14.2014  
Ráll

Sáangi 1 CMC § 2153(e) (Allégh kkaal e bwe lléghló sáangi AG bwe e fil rel fféeruúl) me 1 CMC § 9104 (a)(3) (mwiir sáangi yaar llégh ló me AG) rel pommol allégh ye re aschuulong bwe ra takkal amweeri fiischiy, me llégh ló fféerúl me legal sufficiency sáangi CNMI Attorney General me e bwe le attotoowow, 1 CMC § 2153(f) (Arongowowul allégh me mwóghutughút).

E aghikkila-tiw 26th ráll ye wól Settembre, 2104.

Brian Birnrich  
BRIAN BIRNBRICH  
Sóubwungúl Allégh Lapalap

# COMMONWEALTH GI SANGKATTAN NA ISLAS MARIANAS SIHA

STATE BOARD OF EDUCATION  
Sisteman Eskuelan Publiku  
P. O. BOX 501370 SAIPAN, MP 96950

## **NUTISIAN PUBLIKU PUT I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA NI MANMA'AMENDA PARA I AREKLAMENTU YAN REGULASION SIHA SIGUN I KAPITULU 60-30.2 NA AREKLAMENTU YAN REGULASION SIHA GI SISTEMAN ESKUELAN PUBLIKU**

**I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Sisteman Eskuelan Publiku ("PSS") ha sodda' na:

**I AKSION NI MA'INTENSIONA PARA U MA'ADAPTA ESTI I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Siha, i Sisteman Eskuelan Publiku ("PSS") ha intensiona para u adapta kumu petmanienti na regulasion siha ni mañechettun i Manmaproponi na Regulasion siha, sigun gi manera siha gi Aktun Administrative Procedures, 1 CMC § 9104(a). I Regulasion siha para u ifektibu gi halum dies(10) dihas dispues di adaptasion yan publikasion gi halum i Rehistran Commonwealth. (1 CMC § 9105(b))

**ATURIDAT:** I manmaproponi na amendaslon siha para i PSS na regulasion manmacho'gui sigun gi aturidat i Kuetpu kumu mapribeniyi ginin i Attikulu XV gi Konstitusion CNMI, Lai Publiku 6-10 yan i Aktun i CNMI Administrative Procedures.

**I TEMA YAN SUSTANSIAN I PALABRA SIHA:** I manmaproponi na amendaslon ni mapega mo'na para u pribeniyi giniha siha para i PSS §60-30.2-200 gi Settifikasion.

**I SUHETU NI MASUMARIA YAN ASUNTU NI TINEKKA SIHA:** I Manmaproponi na Regulasion mapega mo'na i regulasion yan manera siha ni dinimanda para i giniha siha gi halum i Certification Process kumu tinetekka para dinimandan ayudantin ma'estru siha.

**DIREKSION PARA U MAPO'LU YAN PUBLIKASION:** Esti i Manmaproponi na Regulasion siha debi na u mapublikasion gi halum i Rehistran Commonwealth gi seksiona ni manmaproponi yan nuebu na ma'adapta na regulasion siha 1 CMC § 9102 (a) (1) yan mapega gi halum i kumbenienti na lugat siha gi halum ufisinan gubietnamentu gi kada distritun senadot, parehu English yan i dos na lingguahin natibu. (1 CMC § 9104(a) (1))

**PARA U MAPRIBENIYI UPIÑON SIHA:** Todu maninterisao na petsona siha ma'eksamina i manmaproponi na amendaslon siha yan u mana'halum i tinigi' imfotmasion, pusion, pat inaksepta para pat kinentran i manmaproponi na amendaslon siha guatu gi Kabiseyu, State Board of Education, via mail gi P.O. Box 501370 CK, Saipan, MP 96950, pat tilifon gi 670- 237-3027 pat fax 670-664-3711 gi halum i trenta(30) dihas ni tinattitiyi ni fetchan kalendariu yan gi fetchan publikasion gi halum Rehistran Commonwealth gi esti na amendaslon siha. (1 CMC § 9104(a) (2))

Esti na regulasion ma'apueba gi Huntan i State Board of Education gi Agostu 26, 2014.

Nina'haium as:  10/9/14  
Herman T. Guerrero  
Kabasiyu, State Board of Education  
Fetcha

Rinisibi as:  10/11/14  
Esther S. Fleming  
Espisiat Na Ayudanti Para I Atministrasion  
Fetcha

Pine'lu yan  
Ninota as:  10.14.2014  
Esther SN. Nesbitt  
Rehistran Commonwealth  
Fetcha

Sigun i 1 CMC § 2153(e) (Inapueba i regulasion siha ni Abugadu Henerat ni para u macho' gui kumu fotma) yan 1 CMC § 9104(a) (3) (hentan inapueban Abugadu Henerat) i manmaproponi na regulasion siha ni mañechettun guini ni manmaribisa yan manma'apueba kumu fotma yan sufisienti ligat ginin i CNMI Abugadu Henerat yan debi na u mapublika, 1 CMC § 2153(f) (publikasion i areklamentu yan regulasion siha).

Mafetcha guini gi diha 26th di Septembri, 2014.

  
Gil Brinbrich  
Abugadu Henerat

## Part - 200 Certification

### § 60-30.2-205 Definitions

<sup>1</sup>( ) "Paraprofessional" means someone who provides instructional support, included those who (1) provide one-on-one tutoring is such tutoring is scheduled at a time when students would not otherwise receive instruction from a teacher, (2) assist with classroom management, such as by organizing instructional materials, (3) provide instructional assistance in a computer laboratory, (4) conduct parental involvement activities, (5) provide instructional support in a library or media center, (6) act as a translator, or (7) provide instructional support services under the direct supervision of a highly qualified teacher.

### § 60-30.2-225 Types of Certification and Requirements

<sup>2</sup>(a) A paraprofessional certificate is required of all those who fall under the definition of Paraprofessional and can require one of the following:

- (i) Completed two (2) years of study at an institution of higher education; or
- (ii) Obtained an associate's (or higher) degree; or
- (iii) Met rigorous standard of quality and be able to demonstrate, through a formal State or local academic assessment, knowledge of and the ability to assist in instructing, reading, writing, and mathematics (or as appropriate, reading readiness, writing readiness, and mathematics readiness). For CNMI PSS, employee must take and pass Praxis I (PPST).

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<sup>1</sup> In order to maintain the definitions in alphabetical order this section should be "(e)" with the remaining sections shifting down.

<sup>2</sup> There is currently a "§ (a)" this new section replaces it without deleting it, the current sections move down and become "(b)" with everything remaining the same.



# COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

STATE BOARD OF EDUCATION  
PUBLIC SCHOOL SYSTEM  
P.O. BOX 501370  
SAIPAN, MP 96950



Herman T. Guerrero  
*Chairman*

Lucia T. Blanco-Maratita, Esq.  
*Vice-Chairwoman*

Jonice A. Tenorio  
*Secretary/Treasurer*

*Members*  
Marilyou S. Adu  
Denise R. King

*Non Public School Rep.*  
Galvin S. Deleon Guerrero

*Student Representative*  
Loria Dee Adu Hoxog

*Teacher Representative*

*Commissioner of Education*  
Rita A. Sablan, Ed.D.  
cae.ras@cnmipss.org

## **PUBLIC NOTICE OF PROPOSED RULES AND REGULATIONS WHICH ARE AMENDMENTS TO RULES AND REGULATIONS REGARDING CHAPTER 60-30.3 PUBLIC SCHOOL SYSTEM RULES AND REGULATIONS**

**PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System (PSS) finds that:

**INTENDED ACTION TO ADOPT THESE PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System intends to adopt as permanent regulations the attached Proposed Regulations, pursuant to the procedures of the Administrative Procedure Act, 1 CMC § 9104(a). The Regulations would become effective ten (10) days after adoption and publication in the Commonwealth Register. (1 CMC § 9105(b))

**AUTHORITY:** The proposed amendments to PSS regulations are promulgated pursuant to the Board's authority as provided by Article XV of the CNMI Constitution, Public Law 6-10 and the CNMI Administrative Procedures Act.

**THE TERMS AND SUBSTANCE:** The proposed amendment set forth to provide procedural guidelines for PSS §60-30.3-615 Annual Leave.

**THE SUBJECTS AND ISSUES INVOLVED:** The Proposed Regulation sets forth the regulations and procedures required for guidelines in the maximum accrual and conversion of annual leave.

**DIRECTIONS FOR FILING AND PUBLICATION:** These Proposed Regulations shall be published in the Commonwealth Register in the section on proposed and newly adopted regulations. (1 CMC § 9102(a) (1) and posted in convenient places in the civic center and in local government offices in each senatorial district, both in English and in the principal vernacular. (1 CMC § 9104 (a) (1))

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Commissioner of Education  
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Fax: (670) 664-3798



**TO PROVIDE COMMENTS:** All interested persons may examine the proposed amendments and submit written comments, positions, or statements for or against the proposed amendments to the Chairperson, State Board of Education, via mail at P.O. Box 501370 CK, Saipan, MP 96950, via phone at 670-237-3027 or via fax to 670-664-3711 within thirty (30) calendar days following the date of the publication in the Commonwealth Register of these amendments. (1 CMC § 9104(a) (2))

This regulation was approved at the State Board of Education Special Meeting on October 10, 2014.


Submitted by:  10/14/14  
Herman T. Guerrero Date  
Chairman, State Board of Education

Received by:  10/21/14  
Esther S. Fleming Date  
Special Assistant for Administration

Filed and Recorded by:  10.22.2014  
Esther SN. Nesbitt Date  
Commonwealth Register

Pursuant to 1 CMC § 2153(e) (AG approval of regulations to be promulgated as to form) and 1 CMC § 9104 (a) (3) (obtain AG approval) the proposed regulations attached hereto have been reviewed and approved as to form and legal sufficiency by the CNMI Attorney General and shall be published (1 CMC § 2153(f) (publication of rules and regulations)).

Dated this 21st day of October, 2014.

  
Gil Birnrich  
Attorney General

**Part 600- Employment Benefits**

**§ 60-30.3-6159(c) Annual Leave**

(c) The maximum accumulation of annual leave shall be three hundred sixty (360) hours. Annual leave may be cashed out upon separation from the PSS. Separation shall mean that the employee will not work for the PSS for at least six (6) consecutive months unless waived by the Commissioner of Education subject to approval of the Board of Education. The cash value of one (1) hour of annual leave shall equal 1/2,080th of the employee's annual salary at the time of separation. Annual leave accrued in excess of three hundred sixty (360) hours shall be converted to sick leave *at the end of each calendar year*.

# COMMONWEALTH GI SANGKATTAN NA ISLAS MARIANAS SIHA

STATE BOARD OF EDUCATION  
Sisteman Eskuelan Publiku  
P. O. BOX 501370 SAIPAN, MP 96950

## NUTISIAN PUBLIKU PUT I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA NI MANMA'AMENDA PARA I AREKLAMENTU YAN REGULASION SIHA SIGUN I KAPITULU 60-30.3 NA AREKLAMENTU YAN REGULASION SIHA GI SISTEMAN ESKUELAN PUBLIKU

**I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Sisteman Eskuelan Publiku ("PSS") ha sodda' na:

**I AKSION NI MA'INTENSIONA PARA U MA'ADAPTA ESTI I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Siha, i Sisteman Eskuelan Publiku ("PSS") ha intensiona para u adapta kumu petmanienti na regulasion siha ni mañechettun i Manmaproponi na Regulasion siha, sigun gi manera siha gi Åktun Administrative Procedures, 1 CMC § 9104(a). I Regulasion siha para u ifektibu gi halum dies(10) dihas dispues di adaptasion yan publikasion gi halum i Rehistran Commonwealth. (1 CMC § 9105(b))

**ÅTURIDÅT:** I manmaproponi na amendasion siha para i PSS na regulasion manmacho'gui sigun gi åturidåt i Kuetpu kumu mapribeniyi ginin i Attikulu XV gi Konstitusion CNMI, Lai Publiku 6-10 yan i Åktun i CNMI Administrative Procedures.

**I TEMA YAN SUSTANSIAN I PALÅBRA SIHA:** I manmaproponi na amendasion ni mapega mo'na para u pribeniyi giniha siha para i PSS §60-30.3-615 gi Annual Leave.

**I SUHETU NI MASUMÅRIA YAN ASUNTU NI TINEKKA SIHA:** I Manmaproponi na Regulasion mapega mo'na i regulasion yan manera siha ni dinimånda para i giniha siha gi halum i maximum accrual yan conversion i annual leave.

**DIREKSION PARA U MAPO'LU YAN PUBLIKASION:** Esti i Manmaproponi na Regulasion siha debi na u mapublika gi halum i Rehistran Commonwealth gi seksiona ni manmaproponi yan nuebu na ma'adapta na regulasion siha 1 CMC § 9102 (a) (1) yan mapega gi halum i kumbenienti na lugåt siha gi halum ufisinan gubietnamentu gi kada distritun senadot, parehu English yan i dos na lingguåhin natibu. (1 CMC § 9104(a) (1))

**PARA U MAPRIBENIYI UPIÑON SIHA:** Todu maninterisåo na petsona siña ma'eksamina i manmaproponi na amendasion siha yan u mana'hålum i tinigi' imfotmasion, pusion, pat inaksepta para pat kinentran i manmaproponi na amendasion siha guatu gi Kabiseyu, State Board of Education, via mail gi P.O. Box 501370 CK, Saipan, MP 96950, pat tilifon gi 670- 237-3027 pat fax 670-664-3711 gi halum i trenta(30) dihas ni tinattitiyi ni fetchan kalendåriu yan gi fetchan publikasion gi halum Rehistran Commonwealth gi esti na amendasion siha. (1 CMC § 9104(a) (2))

Esti na regulasion ma'apueba gi Huntan i State Board of Education gi Oktubri 10, 2014.

Nina'hålum as:   
Herman T. Guerrero  
Kabesiya, State Board of Education

10/14/14  
Fetcha

Rinisibi as:   
Esther S. Fleming  
Espisiãt Na Ayudãnti Para Atministrasion

10/21/14  
Fetcha

Pine'lu yan  
Ninota as:   
Esther SN. Nesbitt  
Rehistran Commonwealth

10.22.2014  
Fetcha

Sigun i 1 CMC § 2153(e) (Inapueba i regulasion siha ni Abugãdu Henerãt ni para u macho'gui kumu fotma) yan 1 CMC § 9104(a) (3) (hentan inapueban Abugãdu Henerãt) i manmaproponi na regulasion siha ni mañechettun guini ni manmaribisa yan manma'apueba kumu fotma yan sufisienti ligãt ginin i CNMI Abugãdu Henerãt yan debi na u mapupblika, 1 CMC § 2153(f) (pupublikasion i areklamentu yan regulasion siha).

Mafetcha guini gi diha 26<sup>st</sup> di Oktubri, 2014.

  
Gilbert J. Birnbrich  
Abugãdu Henerãt

## Påtti 600-Benifisiun Inempleha

### § 60-30.3-6159(c) Annual Leave

(c) I mås takhilu' na rinikohin annual leave debi di tres sientus sienta (360) ora. I annual leave siña ma-cashed out gipun sumipåra kontra i PSS. Kumeke'ilekña i separasion na i emple'åo u ti u siña macho'chu' gi PSS putlu menus sais(6) mesis uma'atattiyi solu ma-waived ginin i Commissioner of Education ni sunihetu ni inaprueba ni Kuetpun Edukasion. I cash value gi una ora(1) gi annual leave pumarehu yan i ½, 080<sup>th</sup> gi suetdun emple'åo gi sakkan gi oran separasion. I annual leave ni marikohi ti u inipus i tres sientus sienta(360) ora debi na u mabira guatu gi sick leave gi uttimun kada sakkan kalendåriu.

**ARONGORONGOL TOULAP REL POMMOL ALLÉGH  
IGHA E BWE LIWELL ALLÉGH REL CHAPTER 60-30.3  
ALLÉGHÚL ME MWÓGHUTUGHÚTÚL PUBLIC SCHOOL SYSTEM**

**POMMOL ALLÉGH:** Sángi Commonwealth lóll Marianas me Téé kka Efáng, Public School System (PSS) re schuungi bwe:

**MÁNGEMÁNGIL MWÓGHUTUGHÚT BWE RE BWE ADAPTÁÁLI ALLÉGH:**

Commonwealth lóll Marianas me Téé kka Efáng Public School System re mángemángil re bwe adaptááli bwe e bwe llégh ló allégh kka e appaasch long bwe allégh, sángi mwóghutúghútúl Administrative Procedure Act, 1CMC §9104(a). Allégh kka e bwe bwuung ló lóll seigh (10) ráll mwiril yaar adaptááli me akkatééwowul me rel Commonwealth Register. (1CMC §9105(b)).

**BWÁNGIL:** Pommol liwell ngáli PSS Regualtions nge re arongowow sángi lemelemil Board iye e iischitiw rel Article XV rel CNMI Constitution, Public Law 6-10 me CNMI Administrative Procedure Act.

**KKAPASAL ME AWEEWEL:** Pommol liwell kka e fféer-tiw nge e bwe ayoora mwóghutúghútúl me kkapasal ngáli PSS § 60-30.3-615 Annual Leave.

**KKAPASAL ME ÓUTOL:** Pommol allégh kkal nge e bwe ayoora mwóghutúghútúl me kkapasal ngáli allégh me mwóghutúghútúl igha e titingóór sángi mwóghutúghútúl rel lapalól mille re yéélúl me e bwe liwell sángi annual leave

**AFALAFAL REEL AMWEELIL ME ARONGOWOOWUL:** Pommol allégh kkaal nge re bwe akkatééwow merel Commonwealth Register me leyiil tánil pommol me allégh mill ffé kka re adaptáánil bwe allégh. (1CMC § 9102 (a) (1) nge e bwe appasch tá me civic center me bwulasiyol gobetnameento lóll senatorial districts, nge re bwe seláti rel English, Remaraalis me Refaluwasch. (1CMC § 9104 (a) (1))

**ATTOOTOLONGOL MÁNGEMÁNG:** Re arongoowow reer toulap bwe re bwe amweeri pommol lliwel kkaal me re bwe akkafang long me ngáre bwughi ló rel Chairperson, State Board of Education , via mail P.O. Box 501370 CK, Saipan MP, 96950, via phone rel (670) 237-3027, ngáre via fax rel (670) 664-3711 yaar mángemáng, kkapas, me angiingi, ngáre re tepang me igha re se tepang rel pommol lliwel kkaal lóll eliigh (30) ráll mwirill yaal akkatééwow me rel Commonwealth Register rel liwell kkaal. (1 CMC § 9104(a)(2)).

Allégh yel nge e bwuung ló sángi State Board of Education Regular Meetings wól Ottuubre 10, 2014.

Isáliiyallong: Herman T. Guerrero  
Herman T. Guerrero,  
Chairman, State Board of Education

10/14/14  
Ráll

Aramas ye: Esther S. Fleming  
E bwughi Esther S. Fleming  
Special Assistant for Administration

10/20/14  
Ráll

File me  
Rekoodliiyal: Esther SN. Nesbitt  
Esther SN. Nesbitt  
Commonwealth Register

10.22.2014  
Ráll

Sáangi 1 CMC § 2153(e) (Allégh kkaal e bwe lléghló sáangi AG bwe e fil rel fféeruúl) me 1 CMC § 9104 (a)(3) (mwiir sáangi yaar llégh ló me AG) rel pommol allégh ye re aschuulong bwe ra takkal amweeri fiischiy, me llégh ló fféeruúl me legal sufficiency sáangi CNMI Attorney General me e bwe le attotoowow, 1 CMC § 2153(f) (Arongowowul allégh me mwóghutughút).

E aghikkila-tiw wól ráll ye 21st lól Ottuubre, 2104.

Gilbert J. Birnrich  
GILBERT J. BIRNBRICH  
Sóubwungúl Allégh Lapalap

## **PART 600 - Employment Benefits**

### **§ 60-30.3-6159(c) Annual Leave**

(c) Lapalól igha re bwe yélúúl annual leave nge e bwe ela bwúghúw oleigh (360) ótol oora. Ngáre u bwe sefáng merel PSS, emmwel e bwe liwell sáangi annual leave ngáli selaapi. Sefááng nge ghoghool bwe Employee essóbw angaang sefáál rel PSS lól oloow (6) maram, iye schagh ngáre Commissioner of Education e liwelli kkapasal me e bwe bwal bwuung sáangi me Board of Education. Cash value lól ghal euw (1) oora rel annual leave nge e weewe me  $\frac{1}{2}$ ,080<sup>th</sup> sáangi óbwósul Employee's annual salary ótol igha e bwe sefááng ló. Annual leave igha e yéélú lapalól sáangi ela bwúghúw oleigh (360) ótol oora nge e bwe liwell ngai sick leave mwútchúlól ghal lól euw rágh.





# COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS



STATE BOARD OF EDUCATION  
PUBLIC SCHOOL SYSTEM  
P.O. BOX 501370  
SAIPAN, MP 96950

Herman T. Guerrero  
Chairman

Lucita L. Blanco-Marathia, Esq.  
Vice-Chairwoman

James A. Tenorio  
Secretary/Treasurer

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Non Public School Rep.  
Galen S. Deleon Guerrero

Student Representative  
Lucia Dee Ada Hocog

Teacher Representative

Commissioner of Education  
Rita A. Sablan, Ed.D.  
cne.ras@nmipss.org

## PUBLIC NOTICE OF PROPOSED RULES AND REGULATIONS WHICH ARE AMENDMENTS TO RULES AND REGULATIONS REGARDING CHAPTER 60-40 PUBLIC SCHOOL SYSTEM RULES AND REGULATIONS

**PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System (PSS) finds that:

**INTENDED ACTION TO ADOPT THESE PROPOSED RULES AND REGULATIONS:** The Commonwealth of the Northern Mariana Islands Public School System intends to adopt as permanent regulations the attached Proposed Regulations, pursuant to the procedures of the Administrative Procedure Act, 1 CMC § 9104(a). The Regulations would become effective ten (10) days after adoption and publication in the Commonwealth Register. (1 CMC § 9105(b))

**AUTHORITY:** The proposed amendments to PSS regulations are promulgated pursuant to the Board's authority as provided by Article XV of the CNMI Constitution, Public Law 6-10 and the CNMI Administrative Procedures Act.

**THE TERMS AND SUBSTANCE:** The proposed amendment set forth to provide procedural guidelines for PSS §60-40 Procurement Rules and Regulations.

**THE SUBJECTS AND ISSUES INVOLVED:** The Proposed Regulation sets forth the regulations and procedures required for guidelines in the procurement process as it relates to purchase orders, change orders and publication.

**DIRECTIONS FOR FILING AND PUBLICATION:** These Proposed Regulations shall be published in the Commonwealth Register in the section on proposed and newly adopted regulations. (1 CMC § 9102(a) (1) and posted in convenient places in the civic center and in local government offices in each senatorial district, both in English and in the principal vernacular. (1 CMC § 9104 (a) (1))

State Board of Education  
Telephone: (670) 237-3027  
Fax: (670) 664-3711

STUDENTS FIRST  
www.cnunipss.org

Commissioner of Education  
Telephone: (670) 237-3001/3061/3075  
Fax: (670) 664-3798

**TO PROVIDE COMMENTS:** All interested persons may examine the proposed amendments and submit written comments, positions, or statements for or against the proposed amendments to the Chairperson, State Board of Education, via mail at P.O. Box 501370 CK, Saipan, MP 96950, via phone at 670-237-3027 or via fax to 670-664-3711 within thirty (30) calendar days following the date of the publication in the Commonwealth Register of these amendments. (1 CMC § 9104(a) (2))

This regulation was approved at the State Board of Education Regular Meeting on August 26, 2014.

Submitted by: Herman T. Guerrero 9/26/14  
Herman T. Guerrero Date  
Chairman, State Board of Education

Received by: Esther S. Fleming 10/15/14  
Esther S. Fleming Date  
Special Assistant for Administration

Filed and Recorded by: Esther SN. Nesbitt 10.14.2014  
Esther SN. Nesbitt Date  
Commonwealth Register

Pursuant to 1 CMC § 2153(e) (AG approval of regulations to be promulgated as to form) and 1 CMC § 9104 (a) (3) (obtain AG approval) the proposed regulations attached hereto have been reviewed and approved as to form and legal sufficiency by the CNMI Attorney General and shall be published (1 CMC § 2153(f) (publication of rules and regulations)).

Dated this 26th day of September, 2014.

Gil Brinbrich  
Gil Brinbrich  
Attorney General

# COMMONWEALTH GI SANGKATTAN NA ISLAS MARIANAS SIHA

STATE BOARD OF EDUCATION  
Sisteman Eskuelan Publiku  
P. O. BOX 501370 SAIPAN, MP 96950

## NUTISIAN PUBLIKU PUT I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA NI MANMA'AMENDA PARA I AREKLAMENTU YAN REGULASION SIGUN I KAPITULU 60-40 NA AREKLAMENTU YAN REGULASION SIHA GI SISTEMAN ESKUELAN PUBLIKU

**I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Isias Marianas Sisteman Eskuelan Publiku ("PSS") ha sodda' na:

**I MA'INTENSIONA NA AKSION NI PARA U MA'ADAPTA ESTI I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Commonwealth gi Sangkattan na Islas Marianas Siha, i Sisteman Eskuelan Publiku ("PSS") ha intensiona para u adapta kumu petmanienti na regulasion siha ni mañechettun i Manmaproponi na Regulasion siha, sigun gi manera siha gi Aktun Administrative Procedures, 1 CMC § 9104(a). I Regulasion siha para u ifektibu gi halum dies(10) dihas dispues di adaptasion yan publikasion gi halum i Rehistran Commonwealth. (1 CMC § 9105(b))

**ATURIDAT:** I manmaproponi na amendasion siha para i PSS na regulasion manmacho'gui sigun gi aturidat i Kuetpu kumu mapribeniyi ginin i Attikulu XV gi Konstitusion CNMI, Lai Publiku 6-10 yan i Aktun i CNMI Administrative Procedures.

**I TEMA YAN SUSTANSIAN I PALABRA SIHA:** I manmaproponi na amendasion ni mapega mo'na ni para u pribeniyi giniha siha para i PSS §60-40 gi Areklamentu yan Regulasion Procurement siha.

**I SUHETU NI MASUMARIA YAN ASUNTU NI TINEKKA SIHA:** I Manmaproponi na Regulasion mapega mo'na i regulasion yan i madimanda na manera siha para i giniha gi halum i procurement process siha kumu tinetekka para i purchase orders, change orders yan i publikasion.

**DIREKSION PARA U MAPO'LU YAN PUBLIKASION:** Esti i Manmaproponi na Regulasion siha debi na u mapublika gi halum i Rehistran Commonwealth gi seksiona ni manmaproponi yan nuebu na ma'adapta na regulasion siha 1 CMC § 9102 (a) (1) yan mapega gi halum i kumbenienti na lugat siha gi halum ufisinan gubietnamentu gi kada distritun senadot, parehu English yan i dos na iingguahin natibu. (1 CMC § 9104(a) (1))

**PARA U MAPRIBENIYI UPIÑON SIHA:** Todu maninterisao na petsona siña ma'eksamina i manmaproponi na amendasion siha yan u mana'halum i tinigi' imfotmasion, pusion, pat inaksepta para pat kinentran i manmaproponi na amendasion siha guatu gi Kabiseyu, State Board of Education, via mail gi P.O. Box 501370 CK, Saipan, MP 96950, pat tilifon gi 670- 237-3027 pat fax 670-664-3711 gi halum i trenta(30) dihas ni tinattitiyi ni fetchan kalendariu yan gi fetchan publikasion gi halum Rehistran Commonwealth gi esti na amendasion siha. (1 CMC § 9104(a) (2))

Esti na regulasion ma'apueba gi Huntan i State Board of Education gi Agostu 26, 2014.

Nina'hålum as:   
Herman T. Guerrero  
Kabesyuu, State Board of Education

10/9/14  
Fetcha

Rinisibi as:   
Esther S. Fleming  
Espisiât Na Ayudânti Para l Atministrasion

10/15/15  
Fetcha

Pine'lu yan  
Ninota as:   
Esther SN. Nesbitt  
Rehistran Commonwealth

10.17.2014  
Fetcha

Sigun i 1 CMC § 2153(e) (Inapueba i regulasion siha ni Abugâdu Henerât ni para u macho'gui kumu fotma) yan 1 CMC § 9104(a) (3) (hentan inapueban Abugâdu Henerât) i manmaproponi na regulasion siha ni mañechettun guini ni manmaribisa yan manma'apueba kumu fotma yan sufisienti ligât ginin i CNMI Abugâdu Henerât yan debi na u mapublika, 1 CMC § 2153(f) (publikasion i areklamentu yan regulasion siha).

Mafetcha guini gi diha 26th di Septembri, 2014.

  
Gil Brinbrich  
Abugâdu Henerât

**ARONGORONGOL TOULAP REL POMMOL ALLÉGH  
IGHA E BWE LIWELL ALLÉGH REL CHAPTER 60-40  
ALLÉGHÚL ME MWÓGHUTUGHÚTÚL PUBLIC SCHOOL SYSTEM**

**POMMOL ALLÉGH:** Sángi Commonwealth lóll Marianas me Téé kka Efáng, Public School System (PSS) re schuungi bwe:

**MÁNGEMÁNGIL MWÓGHUTUGHÚT BWE RE BWE ADAPTÁÁLI ALLÉGH:**

Commonwealth lóll Marianas me Téé kka Efáng Public School System re mángemángil re bwe adaptááli bwe e bwe llégh ló allégh kka e appaasch long bwe allégh, sángi mwóghutughútúl Administrative Procedure Act, 1CMC §9104(a). Allégh kka e bwe bwuung ló lóll seigh (10) ráll mwiril yaar adaptááli me akkatééwowul me rel Commonwealth Register. (1CMC §9105(b)).

**BWÁNGIL:** Pommol liwell ngáli PSS Regualtions nge re arongowow sángi lemelemil Board iye e iischitiw rel Article XV rel CNMI Constitution, Public Law 6-10 me CNMI Administrative Procedure Act.

**KKAPASAL ME AWEEWEL:** Pommol lliwel kka e fféer-tiw nge e bwe ayoora mwóghutughútúl me kkapasal ngáli PSS § 60-40 Procurement rules me Regulations.

**KKAPASAL ME ÓUTOL:** Pommol allégh kkal nge e bwe ayoora mwóghutughútúl me kkapasal ngáli allégh me mwóghutughútúl igha e titingóór sángi mwóghutughútúl rel Procurement igha re aweewe me purchase orders, change orders, me publication.

**AFALAFAL REEL AMWEELIL ME ARONGOWOOWUL:** Pommol allégh kkaal nge re bwe akkatééwow merel Commonwealth Register me leyiiil tálil pommol me allégh mill ffé kka re adaptááilil bwe allégh. (1CMC § 9102 (a) (1) nge e bwe appasch tá me civic center me bwulasiyol gobetnameento lóll senatorial districts, nge re bwe seláti rel English, Remaraalis me Refaluwasch. (1CMC § 9104 (a) (1))

**ATTOOTOLONGOL MÁNGEMÁNG:** Re arongoowow reer toulap bwe re bwe amweeri pommol lliwel kkaal me re bwe akkafang long me ngáre bwughi ló rel Chairperson, State Board of Education , via mail P.O. Box 501370 CK, Saipan MP, 96950, via phone rel (670) 237-3027, ngáre via fax rel (670) 664-3711 yaar mángemáng, kkapas, me angiingi, ngáre re tepang me igha re se tepang rel pommol lliwel kkaal lóll eliigh (30) ráll mwirill yaal akkatééwow me rel Commonwealth Register rel liwell kkaal. (1 CMC § 9104(a)(2)).

Allégh yel nge e bwuung ló sángi State Board of Education Regular Meetings wól Agosto 26, 2014.

Isáliiyallong: Herman T. Guerrero  
Herman T. Guerrero,  
Chairman, State Board of Education

10/9/14  
Ráll

Aramas ye: Esther S. Fleming  
E bwughi Esther S. Fleming  
Special Assistant for Administration

10/15/14  
Ráll

File me  
Rekoodliiyal: Esther SN. Nesbitt  
Esther SN. Nesbitt  
Commonwealth Register

10-14-2014  
Ráll

Sáangi 1 CMC § 2153(e) (Allégh kkaal e bwe lléghló sáangi AG bwe e fil rel fféeruúl) me 1 CMC § 9104 (a)(3) (mwiir sáangi yaar llégh ló me AG) rel pommol allégh ye re aschuulong bwe ra takkal amweeri fiischiy, me llégh ló fféerúl me legal sufficiency sáangi CNMI Attorney General me e bwe le attotoowow, 1 CMC § 2153(f) (Arongowowul allégh me mwóghutughút).

E aghikkila-tiw 26th ráll ye wól Settembre, 2104.

Brian Birnrich  
Gail ~~BRIAN~~ BIRNBRICH  
Sóubwungúl Allégh Lapalap

## **Part 200- Source Selection and Contract Formation**

### **§ 60-40-205 Competitive Sealed Bidding**

(b) Public Notice. Adequate public notice of the invitation for bids shall be given a reasonable time prior to the date set forth for the opening of bids. Publication of notice shall be on the Public School website over a continuous period of four (4) weeks shall be deemed to be adequate notice.

(c) Bidding Time. A bidding time of at least four (4) weeks shall be provided, unless the Chief determines in writing that a shorter period is necessary.

### **§ 60-40-210 Small Purchases**

(b) Purchases not exceeding \$250.00 may be made without securing bids or price quotations if the Chief of Procurement and Supply considers the price reasonable. Such determination shall be made in writing and shall indicate

(i) the reason why price quotations were not sought

(ii) the utility of the purchase

(iii) an explanation of why the price is reasonable under the circumstances

(c) Bidding is not required but is encouraged for procurement under \$10,000. Price quotations from at least three (3) vendors must be obtained and the selection based on competitive price and quality for procurement valued at under \$10,000. Any price quotations obtained must be written, documented and submitted to the Chief for approval. However if it is an emergency and three (3) price quotations are not practicable, the purchase shall function as an emergency procurement and follow § 60-40-220.

### **§ 60-40-202 Change Orders**

(a) A change order will only be allowed if an increase, decrease, or change in the Scope of Work is required which was not reasonably foreseeable at the time of the formation of the contract by either party. However, no change order resulting in an increase in contract cost, or time shall be allowed when it is the direct result of either party's inexperience, inefficiency, or competence.

(b) Before adding significant new work to existing contracts, the Procurement and Supply officer shall thoroughly assess whether it would be more prudent to seek competition. This assessment shall be in writing and will articulate the specific need for the good or service, the reason(s) it should not be competitive, and any circumstances that led to her decision. All change orders which increase the

original contract price by 25% shall automatically be procured through competitive procedures except when there is an emergency or when there is a sole source procurement. At no time shall more than two (2) change orders be allowed to a contract for services where the additional services are trainings or other professional services.

(c) Contractors shall not be allowed to continue working beyond the expiration term of a contract in the absence of an approved new contract or change order. Change orders shall be processed under the procedures for processing new contracts.





# TINIAN CASINO GAMING CONTROL COMMISSION

Municipality of Tinian and Aguiguan  
Commonwealth of the Northern Mariana Islands



Mathew C. Masga  
Chairman

Bernadita C. Palacios  
Vice Chairwoman

Ignacio K. Quichocho  
Member

Lydia F. Barcinas  
Member

Lucia L. Blanco-Maratita, Esq.  
Executive Director  
TinianGamingED@gmail.com

## **PUBLIC NOTICE OF PROPOSED RULES AND REGULATIONS PERTAINING TO THE ESTABLISHMENT OF TECHNICAL STANDARDS AND REQUIREMENTS APPLICABLE TO SLOT MACHINES, ELECTRONIC TABLE GAMES AND ASSOCIATED GAMING EQUIPMENT FOR USE IN LICENSED CASINOS ON THE ISLAND OF TINIAN**

**PROPOSED RULES AND REGULATIONS:** The Tinian Casino Gaming Control Commission (TCGCC) finds that:

**INTENDED ACTION TO ADOPT THESE PROPOSED RULES AND REGULATIONS:** The Tinian Casino Gaming Control Commission intends to adopt as permanent regulations the attached Proposed Regulations, pursuant to the procedures of the Administrative Procedures Act, 1 CMC § 9104(a). The regulations would become effective ten (10) days after adoption and publication in the Commonwealth Register. (1 CMC § 9104(b))

**AUTHORITY:** The proposed regulations to TCGCC regulations are promulgated pursuant to the Commission's authority as provided by Part II Section 5(8)c and Part XI, § 121(2)(f), of the Revised Casino Gaming Control Act of 1989 to establish regulations and the CNMI Administrative Procedures Act.

**THE TERMS AND SUBSTANCE:** The proposed regulations establishes technical standards and requirements applicable to slot machines, electronic table games and associated gaming equipment for use in licensed casinos on the Island of Tinian to ensure compliance with Revised Casino Gaming Control Act of 1989 and to protect the public's interest in the integrity of gaming operations and will provide the structure for regulation of the importation and use of the equipment on the gaming floor.

**THE SUBJECTS AND ISSUES INVOLVED:** The proposed regulations establishes technical standards and requirements applicable to slot machines, electronic table games and associated gaming equipment for use in licensed casinos on the Island of Tinian to ensure compliance with Revised Casino Gaming Control Act of 1989 and to protect the public's interest in the integrity of gaming operations.

**DIRECTIONS FOR FILING AND PUBLICATION:** These Proposed Rules and Regulations shall be published in the Commonwealth Register in the section on proposed regulations and newly adopted regulations. 1 CMC § 9102(a)(1) and posted in convenient places in the Mayor's Office and in local


government offices in each senatorial district, both in English and in the principal vernacular. 1 CMC § 9104(a)(1)

**TO PROVIDE COMMENTS:** All interested persons may examine the proposed amendments and submit written comments, positions, or statement for or against the proposed regulations to the Chairman of the Tinian Casino Gaming Control Commission via mail at P.O. Box 143, Tinian, MP 96952, via phone at (670)433-9288 or via fax to (670)433-9290 within (30) calendar days following the date of the publication in the Commonwealth Register of these amendments. (1 CMC § 9104(a)(2))

These regulations were approved by the Tinian Casino Gaming Control Commission on August 15, 2014.

Submitted by:  9/25/14  
Mathew C. Masga Date  
Chairman  
Tinian Casino Gaming Control Commission


(Received by  \_\_\_\_\_ )  
Esther S. Fleming Date  
Special Asst for Administration

Filed and  
Recorded by:  10.22.2014  
ESTHER SN. NESBITT Date  
Commonwealth Registrar

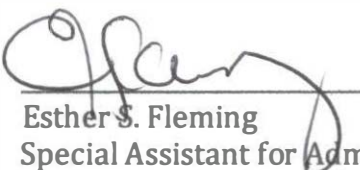
Pursuant to 1 CMC § 2153(e) (AG approval of regulations to be promulgated as to form) and 1 CMC § 9104(a)(3) (obtain AG approval) the proposed regulations attached hereto have been reviewed and approved as to form and legal sufficiency by the CNMI Attorney General and shall be published (1 CMC § 2153(f) (publication of rules and regulations)).

Dated the 14th day of October, 2014.


  
GILBERT BIRNBRICH  
Deputy Attorney General

Isáliiyallong:   
Mathew C. Masga  
Chairman  
Tinian Casino Gaming Control Commission

10/15/14  
Rál

Aramas ye  
E bwuughi:   
Esther S. Fleming  
Special Assistant for Administration

10/21/14  
Rál

File me  
Rekoodliiyal:   
Esther SN. Nesbitt  
Commonwealth Register

10.22.2014  
Rál

Sáangi 1 CMC § 2153(e) (Allégh kkaal e bwe lléghló sáangi AG bwe e fil rel fféerúl) me 1 CMC § 9104 (a) (3) (mwiir sáangi yaar llégh ló me AG) rel pomwol allégh ye re aschuulong bwe ra takkal amwuri fiischiy, me a llégh ló fféerúl me legal sufficiency sáangi CNMI Attorney General me e bwe le arongowoow, 1 CMC § 2153(f) (Arongowowul allégh me mwóghutúghút).

Wól rál ye 14th, lóll October, 2014.

  
**GILBERT BIRNBRICH**  
Deputy Attorney General

**ARONGORONGOL TOULAP, REL POMMWOL ALLÉGH ME MWÓGHUTÚGHÚTÚL, AWEEWEL IGHA RE BWE FFÉÉR NGÁLI TECHNICAL STANDARDS ME REQUIREMENTS IKKA AWEEWEL KKAPASAL SLOT MACHINES. ELECTRIC TABLE GAMES ME ASSOCIATED GAMING EQUIPMENT IGHA RE BWE YÁÁYÁ NGÁLI LICENSED CASINO IYE E LLO WÓL FALÚW YE TCHÚLIYÓL.**

**MÁNGEMÁNGIL POMMWOL RE BWE ADAPTÁÁLI ALLÉGH ME MWÓGHUTÚGHÚT:** Tinian Casino Gaming Control Commission (“TCGCC”) re mángemángil re bwe adaptááli bwe e bwe llégh ló bwe allégh kka re appasch rel Proposed Regulations, sáangi mwóghutúghútúl Administrative Procedure Act, 1 CMC § 9104 (a). E bwe llégh ló allégh kka lóll seigh (10) rál, mwiril yaar adóptááilil me arongowowul me rel Commonwealth Register. (1 CMC § 9104 (b)).

**BWÁNGIL:** Pommol mwóghutúghútúl allégh ngáli mwóghutúghútúl TCGCC e arongowoow sáangi bwángil Commission, iye e palúweli Part II 5(8)c me Part IX, § 121 (2) (f), rel Revised Casino Gaming Control Act of 1989, bwe re bwe fféér alléghúl me bwal CNMI Administrative Procedures Act.

**KKAPASAL ME AWEEWEL:** Pommol mwóghutúghútúl allégh nge e bwe fféér technical standards me requirements ikka aweewel kkapasal slot machines, electronic table games me associated gaming equipments igha re bwe yááyá rel licensed casino wól falúw ye Tchúliyól bwe e bwe llégh rel compliance rel Revised Casino Gaming Control Act of 1989 bwe re bwe alillis rel mille toulap re tipáli rel rel gaming operations nge re bwe iisiis ngáli mwóghutúghútúl alléghúl rel bwobwoghul llong me yááyál mwóókkinal me rel gaming floor.

**KKAPASAL ME ÓUTOL:** Pommol mwóghutúghútúl allégh nge e bwe fféér technical standards me requirements ikka aweewel kkapasal slot machines, electronic table games me associated gaming equipments igha re bwe yááyá rel licensed casino wól falúw ye Tchúliyól bwe e bwe llégh rel compliance rel Revised Casino Gaming Control Act of 1989 bwe re bwe alillis rel mille toulap re tipáli rel rel gaming operations.

**AFALAFAL REL IISISILONGOL ME ARONGOWOWUL:** E bwe arongowoow pommol Allégh me Mwóghutúghút me rel Commonwealth Register leyil táilil rel pommol mwóghutúghút me milikka re adaptááli iye re ffé bwe mwóghutúghút, (1 CMC § 9102(a)(1)) me re appasch tá lól bwuleey kka e ffil rel Mayor’s Office, me Bwulasiyol Gobetnameento lól senatorial districts, rel kkasal English, Remaraalis me Refaluwasch. 1 CMC § 9104(a)(1).

**ATTOTOOLONGOL MÁNGEMÁNG:** Re bwe afanga ngáre bwughiló yóómw iischil mángemáng, me kkapasal ngáli Chairman, rel Tinian Casino Gaming Control Commission, via mail rel P.O. box 143, Tinian, MP 96952, me ngáre bwal personal delivery ló rel ofisiina, ngáre via fax rel (670) 433-9290, nge e bwe llo wól Subject line: “Premium Player Program Regulations” Isiisilongol mángemáng nge e bwe llégh ló llól 30 ráll mwiiril arongowowul me rel Common Register, rel Liwell. (1 CMC § 9104 (a)(2)).

# TINIAN CASINO GAMING CONTROL COMMISSION

Munislpalidat Tinian yan Aguigan  
Commonwealth gi Sangkattan na Islas Marianas

## NUTISIAN PUBLIKU GI MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA NI TINETEKKA PARA I ESTABLISHMENT I TECHNICAL STANDARDS YAN DINIMANDA SIHA NI APLIKAPBLI PARA I SLOT MACHINES, ELECTRONIC TABLE GAMES YAN I ASSOCIATED GAMING EQUIPMENT PARA USUN I MALISENSIA NA CASINOS GI ISLAN TINIAN

**I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Tinian Casino Gaming Control Commission (TCGCC) ha sodda' na:

**I MA'INTENSIONA NA AKSION NI PARA U MA'ADAPTA ESTI SIHA I MANMAPROPONI NA AREKLAMENTU YAN REGULASION SIHA:** I Tinian Casino Gaming Control Commission ha intensiona para u adapta kumu petmanienti na regulasion siha ni ma'echettun i Manmaproponi na Regulasion siha, sigun gi i manera siha gi Aktun Administrative Procedures gi 1 CMC § 9104(a). I regulasion siha para u ifektibu gi halum dies(10)dahas dispues di adaptasion yan publikasion gi halum i Rehistran Commonwealth. (1 CMC § 9104(b))

**ATURIDAT:** I manmaproponi na amendasion siha para i TCGCC Regulasion ni manmacho'gui sigun gi aturidat Kumision kumu mapribeniyi ginin i Patti II Seksiona 5(8)c yan Patti XI, § 121 (2)(f), gi Maribisa na Aktun Casino Gaming Control gi 1989 para u ma'estapblesi regulasion siha yan i Aktun CNMI Administrative Procedures.

**I TEMA YAN SUSTANSIAN I PALABRA SIHA:** I manmaproponi na regulasion siha ha estapblesi i technical standards yan i aplikapbli na dinimanda siha para i slot machines, electronic table games yan associated gaming equipment para usun i malisensia na casinos gi Islan Tinian ni para u na'siguru i compliance i Revised Casino Gaming Control na Aktu gi 1989 yan para u prutehi i intires publiku gi minalolik i operasion gaming siha yan para u pribeniyi structure para i regulasion gi importation yan usun equipment gi pisun huegu.

**I SUHETU NI MASUMARIA YAN ASUNTU NI TINEKKA:** I maproponi na regulasion siha ha estapblesi i technical standards yan aplikapbli na dinimanda siha para i slot machines, electronic table games yan associated gaming equipment para usun i malisensia na casinos gi Islan Tinian ni para u na'siguru i compliance yan i Revised Casino Gaming Control na Aktu gi 1989 yan para u prutehi i intires i publiku gi minalolik i operasion gaming siha.

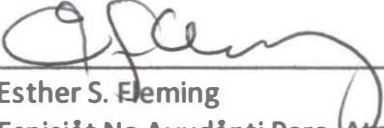
**DIREKSION PARA U MAPO'LU YAN MAPUPBLIKA:** Esti i Manmaproponi na Areklamentu yan Regulasion Siha debi na u mapupblika gi halum i Rehistran Commonwealth gi halum i seksiona ni maproponi na regulasion siha yan nuebu na ma'adapta na regulasion siha (1 CMC § 9102(a)(1) yan u mapega gi halum i mangkumbinienti na lugat siha gi Ufisanan Atkati yan gi halum ufisanan gubietnamentu siha gi halum distritun senadot, parehu English yan gi linguahin natibu (1 CMC § 9104(a)(1).

**PARA U MAPRIBENIYI UPIÑON SIHA:** Todu manintirisáo na petsona siha siña ha eksamina i manmaproponi na amendasion siha yan u na'hálum tinigi' upiñon, pusisions siha, pat sinangan gi pat kinentra gi manmaproponi na amendasion siha guatu gi Kabesiyun i Tinian Casino Gaming Control Commission via mail gi P.O. Box 143, Tinian, MP 96952, pat tilifon gi (670) 433-9288 pat via fax gi (670)433-9290 gi halum trenta(30) dihas ni tinattitiyi gi fetchan kalendáriu gi pupublikasion gi halum i Rehistran Commonwealth gi esti na amendasion siha. (1 CMC 9104(a)(2))

Esti na regulasion siha maninaprueba ni Tinian Casino Gaming Control Commission gi Agostu 15, 2014.

Nina'hálum as:   
Matthew C. Masga  
Kabesiya  
Tinian Casino Gaming Control Commission

10/15/14  
Fetcha

Rinisibi as:   
Esther S. Fleming  
Espisiát Na Ayudánti Para Administrasion

10/21/14  
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Pine'lo yan  
Ninota as:   
ESTHER SN. NESBITT  
Rehistran Commonwealth

10.22.2014  
Fetcha

Sigun i 1 CMC § 2153(e) (Inaprueban Abugádu Henerát ni regulasion siha na para u macho'gui kumu fotma) yan 1 CMC § 9104(a)(3) (inahentan inaprueban Abugádu Henerát) i manmaproponi na regulasion siha ni mañechettun guini ni manmaribisa yan manma'aprueba kumu fotma yan sufisienti ligát ginin i CNMI Abugádu Henerát yan debi na u mapupblika, 1 CMC § 2153(f) (pupublikasion areklamentu yan regulasion siha).

Mafetcha guini gi diha 14th gi October, 2014.



GILBERT BIRNBRICH  
Deputy Attorney General

**EMERGENCY REGULATIONS PERTAINING  
TO THE ESTABLISHMENT OF TECHNICAL STANDARDS  
AND REQUIREMENTS APPLICABLE TO SLOT MACHINES,  
ELECTRONIC TABLE GAMES AND ASSOCIATED GAMING  
EQUIPMENT FOR USE IN  
LICENSED CASINOS ON THE ISLAND OF TINIAN**

**Subchapter 170-30.7 Technical Standards and Requirements Applicable  
to Slot Machines, Electronic Table Games and Associated Gaming  
Equipment**

**Part 001      General Provisions**

**§ 170-30.7 - 001      Definitions**

As used in this Subchapter, the term

(a) **"Associated Gaming Equipment"** means equipment, a system, software or mechanical, electromechanical or electronic contrivance or component used in connection with the operation of a slot machine or table game or the reporting and calculation of slot machine or table game revenue including, but not limited to, a central computer system, slot machine monitoring system, cashiers' cage management system, progressive gaming device, on-line monitoring and control system, cashless wagering system, bonusing system, promotional system, redemption kiosk, electronic table game system, electronic card shuffler and dealing shoe, player tracking system, ticket redemption kiosk, automated jackpot payout machine, a progressive controller, replacement parts applicable thereto or any other equipment, system or software designated as associated gaming equipment by the Executive Director.

(b) **"Cash Equivalent Value"** means:

(1) For merchandise that is sold directly to the public in the normal course of the licensee's business, the full retail price normally charged for the item.

(2) For merchandise not offered for sale to the public in the normal course of the licensee's business, but which is provided directly to the patron by the licensee, the actual cost to the licensee of providing the item.

(3) For merchandise provided directly or indirectly to the patron on behalf of a licensee by a third party, the actual cost to the licensee of having the third party provide the item.

(c) **"Electronic Table Game"** means any combination of server, player interface and other elements that function collectively for the purpose of electronically simulating a table game.

(d) **"Minimum Theoretical Payout Percentage"** means the total value of jackpots expected to be paid by a slot machine divided by the total value of slot machine wagers expected to be made on that slot machine during a game cycle.

(e) **"Modification"** means a change or alteration that:

(1) Affects the conduct of play or operation of a slot machine, electronic table game or associated gaming equipment including, but not limited to, a change or alteration to a:

- (i) Control program;
- (ii) Graphics program; or
- (iii) Payout percentage.

(2) Does not include the replacement of one approved component with an identical component.

(e) **"Slot Machine"** means, in accordance with the Revised Tinian Casino Gaming Control Act of 1989 ("Act"), Part 1, Section 4, any mechanical, electrical or other device, contrivance or machine which, upon insertion of a coin, token or similar object therein, or upon payment of any consideration whatsoever, is available to play or operate, the play or operation of which whether by reason of the skill of the operator or applica[nt]tion of the element of chance, or both, may deliver or entitle the person playing or operating the machine to receive cash or tokens to be exchanged for cash, or to receive merchandise or anything of value whatsoever, whether the payoff is made automatically from the machine or in any other manner whatsoever.

(1) No merchandise or thing of value shall be offered as part of a payoff of any slot machine unless such merchandise or thing of value has a cash equivalent value of at least \$5,000.00.

(2) The cash equivalent value of any merchandise or thing of value shall not be included in the total of all sums paid out as winnings to patrons for purposes of determining gross revenue as defined herein or be included in determining the payout percentage of any slot machine.

(3) The term slot machine shall include both reel and video devices including, but not limited to, video poker machines, video roulette machines, and any other similar machine or device authorized by the Commission for play by patrons whether in the form of a stand alone slot machine, server based game system or server supported game system.

(4) The term slot machine shall not include a device or system otherwise classified by the Commission as an electronic table game or associated equipment.



**§ 170-30.7 - 005 Authority**

In accordance with the Act, Part XI, § 121(2)(f), the Commission is authorized to prescribe by regulation the "... rules of authorized games, odds, and devices permitted, and the method of operation of such games and devices."

**Part 100 Rules Concerning Testing and Certification of Slot Machines, Electronic Table Games and Associated Gaming Equipment**

**§ 170-30.7 - 101 Testing and Certification of Slot Machines, Electronic Table Games and Associated Gaming Equipment, Generally**

(a) No slot machine, electronic table game or associated gaming equipment shall be sold, leased, distributed or operated on Tinian, CNMI ("Tinian") or otherwise purchased, leased, acquired or offered for play by a casino licensee unless it is identical in all electrical, mechanical and other respects to a prototype thereof that has been both:

(1) Tested and certified by an independent testing laboratory, recognized by the Commission under Section 101(f) of this Part, as complying in all respects with the requirements of the Act, this Subchapter, these technical standards and any applicable regulations adopted by the Commission.

(2) Approved in writing by the Executive Director.

(b) No modification of a version of a slot machine, electronic table game or associated gaming equipment approved by the Executive Director under this Subchapter shall be sold, leased, distributed or operated on Tinian or otherwise purchased, leased, acquired or offered for play by a casino licensee unless the modified version is identical in all electrical, mechanical and other respects to a prototype of the modification that has been both:

(1) Tested and certified by an independent testing laboratory, recognized by the Commission under Section 101(f) of this Part, as complying in all respects with the requirements of the Act, this Subchapter, these technical standards and any applicable regulations adopted by the Commission.

(2) Approved in writing by the Executive Director.

(c) The Executive Director may, in connection with the examination and analysis of a prototype or modification, prescribe a standard product submission checklist, together with supplemental product specific submission checklists for completion by the licensed gaming related casino service industry manufacturing, leasing, distributing or otherwise delivering to the casino licensee the slot machine, electronic table game or associated gaming equipment. This documentation requirement shall be in addition to any submission information required by an independent testing laboratory.

(d) The Commission shall have no responsibility for the cost of any testing and certification services required to comply with this Subchapter.

(e) The Commission shall periodically inspect and/or test slot machines, electronic table games and associated gaming equipment in use by a casino licensee or housed within a hotel-casino complex and may utilize the services of independent testing laboratories, recognized by the Commission under Section 101(f) of this Part, to assist its staff in the performance of such inspection and testing. The casino licensee shall pay all costs associated with such inspection and testing including, but not limited to, the cost of any independent testing laboratory services utilized by the Commission.

(f) The Commission shall recognize and accept data, forensic and field inspection reports and certifications in accordance with this Subchapter from multiple independent testing laboratories provided each laboratory meets the following criteria:

(1) Holds a certificate in good standing for compliance with:

(i) International Organization for Standardization # 17025 — General Requirements for the Competence of Testing and Calibration Laboratories as amended, amplified or substituted by that organization or a functional equivalent; and

(ii) International Organization for Standardization # 17020 — General Criteria for the Operation of Various Types of Bodies Performing Inspections as amended, amplified or substituted by that organization or a functional equivalent.

(2) Has performed testing and certification of slot machines, electronic table games and associated gaming equipment on behalf of a state or tribal jurisdiction within the United States for a period of 5 or more years.

(3) Has demonstrated to the satisfaction of the Commission, in accordance with such procedures as the Commission shall deem appropriate, that it complies with the requirements of this Subchapter.

**Part 200 Slot Machine Technical Standards**

**§ 170-30.7 - 201 Payout Percentage**

(a) No slot machine shall be sold, leased, distributed or operated on Tinian Island or otherwise purchased, leased, acquired or offered for play by a casino licensee unless it has been tested and certified by an independent testing laboratory as having a minimum theoretical payout percentage of 83% and a maximum theoretical payout percentage of less than 100%.

(b) A casino licensee shall prominently post on its gaming floor such information regarding slot machine payout statistics, the odds of winning on slot machines, and such other disclosures to slot machine players as the Commission shall require.

**§ 170-30.7 - 205 Slot Machine Compliance with GLI-11 and GLI - 21.**

(a) Subject to the provisions of Section 210 of this Part, no slot machine shall be sold, leased, distributed or operated on Tinian or otherwise purchased, leased, acquired or offered for play by a casino licensee unless it complies with Gaming Laboratories International's ("GLI") technical standard GLI-11, *Gaming Devices in Casinos*, Version 2.1, released August 25, 2011 and, where applicable, GLI-21, *Client-Server Systems*, Version 2.2, released September 6, 2011.

(b) Subsequent amendment or revision by GLI of GLI-11, Version 2.1 or GLI - 21, Version 2.2 shall not operate in any way to affect an amendment or revision of this Part.

**§ 170-30.7 - 210 Exceptions to Compliance with GLI-11 and GLI-21.**

(a) For the purposes of evaluating a slot machine's compliance with Part 200 of this Subchapter, the following additional requirements and/or modifications to the provisions of GLI-11, Version 2.1 and GLI - 21, Version 2.2 are imposed.

(1) The Commission declines to adopt Chapter 1 of GLI - 11, Chapter 1.1 through Chapter 1.4 of GLI - 21 and any revision history related to GLI-11 or GLI-21.

(2) Any reference to a "gaming device" or "game" in GLI -11 or GLI - 21 shall be construed for purposes herein as referencing a slot machine.

(3) Notwithstanding GLI-11, Section 2.14 .1(g), a slot machine's critical memory shall store, at a minimum, the last 100 significant events.

(4) Any certification report submitted to the Commission by an independent testing laboratory pursuant to the requirements enumerated in GLI-11, Section 2.17.3 shall be accompanied by a separate report documenting to the satisfaction of the Executive Director that the device utilized by the laboratory to authenticate a control program has itself been independently tested for integrity, accuracy and reliability prior to its use in the authentication process.

(5) Notwithstanding the annotation to GLI - 11, Section 2.28.2, a slot machine shall be configured to prevent issuance of a ticket exceeding \$10,000 USD in value and to prohibit the printing of multiple tickets to circumvent that \$10,000 limitation.

(6) Any ticket issued by a casino licensee shall evidence an expiration date at least one year from the date and time of the issuance of the ticket.

(7) A slot machine shall be configured to wager available non-cashable credits prior to cashable credits.

(8) Notwithstanding GLI-11, Section 3.4.1's theoretical payout minimum of 75%, a slot machine shall have a theoretical payout minimum of 83% in compliance with Section 201 of this Part.

(9) A slot machine shall clearly display the disclaimer "malfunction voids all pays."

(10) Notwithstanding the provisions of GLI - 11, Section 3.3.7, for all game types, in all cases, the mathematical probability of a symbol appearing in a position for any game outcome shall be constant. Disclosure on a payglass shall not operate to negate this requirement.

(11) Notwithstanding GLI-11, Section 3.4.3's election to limit the regulation of odds to those applicable to the highest single advertised award only, the odds of achieving each and every award available on a slot machine shall be, statistically, at least once in 100,000,000 games.

(b) The Executive Director may, in the exercise of reasonable discretion, prescribe additional exceptions to GLI-11, Version 2.1 and GLI - 21, Version 2.2.

**§ 170-30.7 - 215 Electronic Table Game Compliance with GLI-24 and GLI - 25.**

(a) No electronic table game shall be sold, leased, distributed or operated on Tinian or otherwise purchased, leased, acquired or offered for play by a casino licensee unless it complies with Gaming Laboratories International's ("GLI") technical standard GLI 24, *Electronic Table Game Systems*, Version 1.3, released September 6, 2011 and, where applicable, GLI 25, *Dealer Controlled Electronic Table Game Systems*, Version 1.2, released September 6, 2011.

(b) Subsequent amendment or revision by GLI of GLI-24, Version 1.3 or GLI - 25, Version 1.2 shall not operate in any way to affect an amendment or revision of this Part.

(c) The Executive Director may, in the exercise of reasonable discretion, prescribe exceptions to GLI-24, Version 1.3 and GLI - 25, Version 1.2.

**§ 170-30.7 – 220 Associated Gaming Equipment Compliance with the GLI Technical Standards .**

(a) No associated gaming equipment shall be sold, leased, distributed or operated on Tinian and or otherwise purchased, leased, acquired or utilized for any purpose by a casino licensee unless it complies with the equipment's corresponding Gaming Laboratories International ("GLI") technical standard including but not limited to:

- (1) GLI 12, Version 2.1, *Progressive Gaming Devices*
- (2) GLI 13, Version 2.1, *Online Monitoring and Control Systems*
- (3) GLI 15, Version 1.3, *Electronic Bingo and Keno Systems*
- (3) GLI 16, Version 2.1, *Cashless Systems in Casinos*
- (4) GLI 17, Version 1.3, *Bonusing Systems in Casinos*
- (5) GLI 18, Version 2.1, *Promotional Systems in Casinos*

- (6) GLI 20, Version 1.5, *Redemption Kiosks*
- (7) GLI 21, Version 2.2, *Client-Server Systems*
- (8) GLI 26, Version 1.1, *Wireless Gaming Systems*
- (9) GLI 27, Version 1.1, *Network Security Best Practices*
- (10) GLI 28, Version 1.0, *Player User Interface Systems*
- (11) GLI 29, Version 1.1, *Card Shufflers and Dealing Shoes*

(b) Subsequent amendment or revision by G.L.I. of any version of a technical standard enumerated in Subsection (a) shall not operate in any way to affect an amendment or revision of this Part resulting in the applicability of the revised standard without formal action by the Commission.

(c) The Executive Director may, in the exercise of reasonable discretion, prescribe exceptions to any of the enumerated G.L.I. technical standards.

**Part 300      Rules Concerning Remote Access**

**§ 170-30.7 - 301      Remote Access**

(a) No person, for any reason emergent or otherwise, may perform from a remote location analysis of, or technical support with regard to, a stand-alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment without:

(1) Submission to the Executive Director of a prior written request in accordance with the Commission approved remote access controls required by Subsection (c) of this Part, which request discloses the natural person accessing the stand alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment, their employer, the location from which the access is effected and the license status of all parties under the Act.

(2) Receipt of written approval by the Executive Director.

(b) A casino licensee may not, for any reason emergent or otherwise, authorize or otherwise permit a person to remotely access a stand-alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment prior to receipt of written approval by the Executive Director under this Part.

(c) A casino licensee shall submit to the Commission, and obtain the Commission's written approval on, remote access controls that require, at a minimum:

- (1) A unique system account for each person required to analyze or perform technical support from a remote location.
- (2) Use of a dedicated and secure communication facility.
- (3) Prior written notice to the casino licensee and the Commission

of an intention to remotely access a stand alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment in accordance with this Part.

(4) The casino licensee to take affirmative steps, on a per access basis, to activate access privileges.

(5) Imposition of restrictions on the ability of a person authorized under this regulation to deliberately or inadvertently interfere with the normal operation of a stand alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment or its data.

(6) Maintenance of an access log by both the person accessing the stand alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment and the casino licensee's information technology department or functional equivalent that is maintained in a book with bound numbered pages that cannot be readily removed or an electronic format equipped with software that prevents modification of an entry after it has been initially entered into the system. The log shall at all times be immediately available to the Commission and shall document:

(i) Manufacturer version number of the stand alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment accessed;

(ii) Type of connection, for example leased line, dial in modem or private WAN;

(iii) Name, location and such identification data as the Commission shall require as to the natural person remotely accessing the stand alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment and his employer including, but not limited to, the information enumerated in Subsection (a)(1);

(iv) Name, location and such identification data as the Commission shall require as to the person activating access to the stand alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment on behalf of the casino licensee.

(v) Date and time of the connection.

(vi) Duration of the connection.

(vii) Reason for the remote access including a description of the symptoms or malfunction prompting the need for remote access; and

(viii) Any action taken or further action required.

(d) The Commission shall periodically test compliance with these requirements including inspection of the location from which a person remotely accesses a stand-alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment. The Commission may utilize the services of independent testing

laboratories, recognized by the Commission under Section 101(f) of this Part, to assist its staff in the performance of such inspections. The casino licensee shall pay all costs associated with such inspection and testing including, but not limited to, the cost of travel and any independent testing laboratory services utilized by the Commission.

(e) If a person is no longer employed or authorized to remotely access a stand alone slot machine, server based game system, server supported game system, electronic table game or associated gaming equipment pursuant to this Part, both the person and their employer shall be obligated to immediately notify the Commission and any casino licensee that has established a unique system account for that person in writing that the access privileges have been revoked.

**Part 400 Rules Concerning Storage of Slot Machines Outside a Casino-Hotel Complex.**

**170-30.7 - 401 Storage of Slot Machines Outside a Casino-Hotel Complex.**

No person may utilize a location other than the casino floor of a licensed casino hotel complex to store or repair slot machines, software or related parts unless the location has been inspected by the Commission and approved in writing by the Executive Director.

**Part 500 Shipment of Slot Machines and Electronic Table Games into Tinian**

**170-30.7 – 501 Legal Shipment**

(a) All shipments into Tinian of a gaming device, including a slot machine or electronic table game, the registering, recording, and labeling of which has been duly made by the manufacturer or dealer in accordance with sections 3 and 4 of an Act of Congress of the United States entitled "An Act to Prohibit Transportation of Gambling Devices in Interstate and Foreign Commerce," designated as 15 U.S.C. 27 §§ 171-1172, shall be deemed legal shipments into Tinian.

(b) Prior to the transportation or movement of any gaming device meeting the requirements of Subsection (a) including (1) the transportation or movement of a slot machine or electronic table game into Tinian from any location or jurisdiction, (2) the transportation or movement of a slot machine or electronic table game from one authorized location to another authorized location on Tinian (other than a shipment between approved storage locations within the same hotel casino complex) or (3) the transportation or movement of a slot machine or electronic table game out of Tinian, the person causing such slot machine or electronic table game to be transported or moved shall deliver prior notification to the Commission in writing providing, at a minimum, the following information:

(1) The full name and address of the person shipping or moving the slot machine or electronic table game.

(2) The full name and address of the person who is the owner of record of the slot machine or electronic table game, including the name of any new owner in the event ownership is being changed in conjunction with the shipment or movement.

(3) The method of shipment or movement and the name of the carrier or carriers.

(4) The full name and address of the person to whom the slot machine or electronic table game is being sent and the destination of said slot machine or electronic table game if different from such address.

(5) The quantity of slot machines or electronic table games being shipped or moved and the manufacturer's name and serial number of each slot machine or electronic table game.

(6) The expected date and time of delivery to, or removal from, any authorized location in Tinian.

(7) The reason for transporting the slot machine or electronic table game.

(c) The person shipping or moving any slot machine or electronic table game requiring notice under this Part shall provide to the shipper a document, at least one copy of which shall be kept with the slot machines or electronic table games at all times during the shipping process, providing, at a minimum, the following information:

(1) The manufacturer's serial number of each slot machine or electronic table game being transported.

(2) The full name and address of the person from whom each slot machine or electronic table game was obtained.

(3) The full name and address of the person to whom each slot machine or electronic table game machine is being sent.

(4) The dates of shipment.

(d) The notices to the Commission required by this Part may be transmitted electronically to the Executive Director.

**Part 600 Grandfathered Slot Machines, Electronic Table Games and Associated Gaming Equipment**

170-30.7 - 601

(a) The testing and certification requirements of this Part shall apply to any slot machine, electronic table game or associated gaming equipment sold, leased, distributed or operated on Tinian or otherwise purchased, leased, acquired or offered for play by a casino licensee on or after the effective date of this regulation.



(b) For a slot machine, electronic table game or associated gaming equipment sold, leased, or distributed on Tinian or otherwise purchased, leased or acquired by a casino licensee prior to the effective date of this regulation, but not installed or activated on the casino floor prior to its effective date, the Executive Director may as a condition precedent to installation require the submission of written assurance in the form of generic testing and certification letters from a recognized independent testing laboratory satisfactory to the Commission that the slot machine, electronic table game or associated equipment complies with the most current GLI standards.

(c) A casino licensee may offer for play a slot machine or electronic table game, or continue the use of associated gaming equipment, that has not been tested and certified pursuant to this Part for a period of two years following the effective date of this regulation provided the slot machine, electronic table game or associated gaming equipment was actively operational on the casino floor or in its cashiers' cage on the effective date of this regulation. This period may be extended by the written authorization of the Commission.

(d) During the grandfathered two year period provided for in Section (c) routine repairs or parts replacement may be made to ensure the proper functioning, security or integrity of the slot machine, electronic table game or associated gaming equipment but no modification as defined in this Part to a slot machine or electronic table game shall be made without the prior written authorization of the Commission.

**Part 700**      **Rules Concerning Waiver**

**170-30.7 - 701**

The Commission may, upon an express finding of good cause shown, waive a requirement of these technical standards on submission of a written request by a casino licensee or upon its own initiative.



## STANDARD SERIES

# GLI-11:

## Gaming Devices in Casinos

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Version: 2.1

Release Date: August 25, 2011



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## **ABOUT THIS STANDARD**

This Standard has been produced by **Gaming Laboratories International, LLC** for the purpose of providing independent certifications to suppliers under this Standard and complies with the requirements set forth herein.

A supplier should submit equipment with a request that it be certified in accordance with this Standard. Upon certification, Gaming Laboratories International, LLC will provide a certificate of compliance evidencing the certification to this Standard.

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# CHAPTER 1

## 1.0 OVERVIEW - STANDARDS FOR GAMING DEVICES

### 1.1 Introduction

**1.1.1 General Statement** Gaming Laboratories International, LLC (GLI) has been testing gaming devices since 1989. Over the years, we have developed numerous standards for jurisdictions all over the world. In recent years, many jurisdictions have opted to ask for the development of industry standards without creating their own standards documents. In addition, with technology changing almost monthly, new technology is not being incorporated quickly enough into existing standards due to the long process of administrative rulemaking. This document is the first of several that will put forth GLI's Standards for Gaming Equipment. This document, GLI Standard 11, will set forth the technical Standards for Gaming Devices in Casinos. A "gaming device" does NOT include, for purposes of this Standard, electronic equipment used in the conduct of table games. For detailed standards applicable to electronic table games, please reference standards GLI-24 (Electronic Table Game Systems) and GLI-25 (Dealer Controlled Electronic Table Games).

**1.1.2 Document History** This document is an essay from many standards documents from around the world. Some GLI has written; some, such as the Australian and New Zealand National Standard, were written by Industry Regulators with input from test laboratories and gaming device manufacturers. We have taken each of the standards' documents, merged each of the unique rules together, eliminating some rules and updating others, in order to reflect both the change in technology and the purpose of maintaining an objective, factual standard. We have listed below, and given credit to, agencies whose documents we reviewed prior to writing this Standard. It is the policy of Gaming Laboratories International, LLC to update this document as often as possible to reflect changes in technology, testing methods, or cheating methods. This document will be distributed without charge to all those who request it. It may be obtained by downloading it from our website at [www.gaminglabs.com](http://www.gaminglabs.com) or by writing to us at:



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**1.2 Acknowledgment of Other Standards Reviewed**

**1.2.1 General Statement.** These Standards have been developed by reviewing and using portions of the documents from the organizations listed below. We acknowledge the regulators who have assembled these documents and thank them:

- a) The ACT Office of Financial Management;
- b) The New South Wales Department of Gaming and Racing;
- c) The New Zealand Casino Control Authority;
- d) The New Zealand Department of Internal Affairs, Gaming Racing & Censorship Division;
- e) The Northern Territory Racing and Gaming Authority;
- f) The Queensland Office of Gaming Regulation;
- g) The South Australian Office of the Liquor and Gaming Commissioner;
- h) The Tasmanian Department of Treasury and Finance, Revenue and Gaming Division;
- i) The Victorian Casino and Gaming Authority;
- j) The Western Australian Office of Racing Gaming and Liquor;
- k) US Tribal Compacts from Tribal Governments and State Governments included:
  - i. Arizona;
  - ii. Connecticut;
  - iii. Iowa Indian;
  - iv. Kansas;
  - v. Louisiana;
  - vi. Michigan;
  - vii. Minnesota;

- viii. Mississippi;
  - ix. North Carolina;
  - x. North Dakota;
  - xi. Oregon; and
  - xii. Wisconsin.
- l) Colorado Division on Gaming – Limited Gaming Regulations;
  - m) Illinois Gaming Board – Adopted Rules;
  - n) Indiana Gaming Commission;
  - o) Iowa Racing and Gaming Commission;
  - p) Louisiana State Police – Riverboat Gaming Division – Gaming Devices;
  - q) Missouri Gaming Commission – Department of Public Safety;
  - r) Nevada Gaming Commission and State Gaming Control Board;
  - s) New Jersey – Regulations on Accounting and Internal Controls;
  - t) South Dakota Commission on Gaming – Rules and Regulations for Limited Gaming;
  - u) NIST Special Publication 800-57, *Recommendations for Key Management – Part 2: Best Practices for Key Management Organization*;
  - v) GSA G2S and S2S protocol standards.

\* Please note a comprehensive revision history of this document is available upon request.

### 1.3 Purpose of Technical Standards

1.3.1 **Purpose.** The purpose of this Technical Standard is as follows:

- a) To eliminate subjective criteria in analyzing and certifying gaming device operation.
- b) To only test those criteria that impact the credibility and integrity of a gaming device from both the Revenue Collection and Player's perspective.
- c) To create a standard that will insure that gaming devices in casinos are fair, secure, and able to be audited and operated correctly.
- d) To distinguish between local public policy and laboratory criteria. At GLI, we believe that it is up to each local jurisdiction to set public policy with respect to gaming.

- e) To recognize that non-gaming testing (such as Electrical Testing) should not be incorporated into this standard but left to appropriate test laboratories that specialize in that type of testing. Except where specifically identified in the standard, testing is not directed at health or safety matters. These matters are the responsibility of the manufacturer, purchaser, and operator of the equipment.
- f) To construct a standard that can be easily changed or modified to allow for new technology.
- g) To construct a standard that does not specify any particular method or algorithm. The intent is to allow a wide range of methods to be used to conform to the standards, while at the same time, to encourage new methods to be developed.

**1.3.2 No Limitation of Technology** One should be cautioned that this document should not be read in such a way that limits the use of future technology. The document should not be interpreted that if the technology is not mentioned, then it is not allowed. Quite to the contrary, as new technology is developed, we will review this standard, make changes and incorporate new minimum standards for the new technology.

## 1.4 Other Documents That May Apply

**1.4.1 Other Standards** This standard covers the actual requirements for single player gaming devices in casinos. The following other standards may apply:

- a) GLI-12 Progressive Gaming Devices in Casinos;
- b) GLI-13 On-Line Monitoring and Control Systems (MCS) and Validation Systems in Casinos;
- c) GLI-16 Cashless Systems in Casinos;
- d) GLI-17 Bonusing Systems in Casinos;
- e) GLI-18 Promotional Systems in Casinos;
- f) GLI-20 Kiosks; and
- g) GLI-21 Client-Server Systems.

## 1.5 Definition of a Gaming Device

**1.5.1 General Statement** A gaming device at a minimum will utilize randomness in determination of prizes, contain some form of activation to initiate the selection process, and make use of a methodology for delivery of the determined outcome. The gaming device may be separated in parts, where some may be within or outside the gaming device (e.g., gaming devices that function with a system).

NOT APPLICABLE

# CHAPTER 2

## 2.0 MACHINE REQUIREMENTS – HARDWARE

### 2.1 Physical Security

**2.1.1 General Statement** A gaming device shall be robust enough to resist forced entry.

### 2.2 Machine and Player Safety

**2.2.1 General Statement** Electrical and mechanical parts and design principals of the gaming device must not subject a player to any physical hazards. The gaming test laboratory shall not make any finding with regard to Safety and Electromagnetic Compatibility (EMC) testing, as that is the responsibility of the manufacturer of the devices or those that purchase the devices. Such Safety and EMC testing may be required under separate statute, regulation, law, or Act and should be researched accordingly, by those parties who manufacture or purchase said devices. The Gaming Test Laboratory shall not test for, be liable for, nor make a finding relating to these matters.

### 2.3 Environmental Effects on Game Integrity

**2.3.1 Game Integrity Standard** The Laboratory will perform certain tests to determine whether or not outside influences affect game fairness to the player or create cheating opportunities. This certification applies exclusively to tests conducted using current and retrospective methodology developed by Gaming Laboratories International, LLC (GLI). During the course of testing, GLI inspects for marks or symbols indicating that a device has undergone product safety compliance testing. Gaming Laboratories International, LLC also performs, where possible, a cursory review of submissions and information contained therein related to Electromagnetic Interference (EMI), Radio Frequency Interference (RFI), Magnetic Interference, Liquid Spills, Power Fluctuations and Environmental conditions, Electrostatic Discharge Testing

is intended only to simulate techniques observed in the field being used to attempt to disrupt the integrity of electronic gaming devices. Compliance to any such regulations related to the aforementioned testing is the sole responsibility of the device manufacturer. GLI claims no liability and makes no representations with respect to such non-gaming testing.

A gaming device shall be able to withstand the following tests, resuming game play without operator intervention.

- a) Random Number Generator. The random number generator and random selection process shall be impervious to influences from outside the device, including, but not limited to, electro-magnetic interference, electro-static interference, and radio frequency interference;
- b) Electro-Static Interference. Protection against static discharges requires that the gaming device's conductive cabinets be earthed in such a way that static discharge energy shall not permanently damage, or permanently inhibit the normal operation of the electronics or other components within the gaming device. Gaming devices may exhibit temporary disruption when subjected to a significant electro-static discharge greater than human body discharge, but they shall exhibit a capacity to recover and complete any interrupted play without loss or corruption of any control or critical data information associated with the gaming device. The tests will be conducted with a severity level of a maximum of 27KV air discharge.

## 2.4 Hardware Requirements-Other

**2.4.1 General Statement** Each gaming device shall meet the following hardware requirements:

- a) Microprocessor Controlled. Be controlled by one (1) or more microprocessors or the equivalent in such a manner that the game outcome is completely controlled by the microprocessor or a mechanical device, as approved in Section 3.3, 'Random Number Generators (RNG) Requirements'; and

- b) On/Off Switch. An on/off switch that controls the electrical current shall be located in a place which is readily accessible within the interior of the gaming device so that power cannot be disconnected from outside of the gaming device using the on/off switch. The on/off positions of the switch shall be labeled.

## 2.5 Gaming Device Wiring

*2.5.1 General Statement.* The gaming device shall be designed so that power and data cables into and out of the gaming device can be routed so that they are not accessible to the general public. This is for game integrity reasons only, not for health and safety. Security-related wires and cables that are routed into a logic area shall be securely fastened within the interior of the device.

*NOTE: The Laboratory will make no determination as to whether the gaming device installation conforms to local electrical codes, standards and practices.*

## 2.6 Machine Identification

*2.6.1 General Statement.* A gaming device shall have an identification badge affixed to the exterior of the cabinet by the manufacturer, that is not removable without leaving evidence of tampering and this badge shall include the following information:

- a) The manufacturer,
- b) A unique serial number,
- c) The gaming device model number; and
- d) The date of manufacture

## 2.7 Tower Light

**2.7.1 General Statement.** The gaming device shall have a light located conspicuously on its top that automatically illuminates when a player has won an amount or is collecting credits that the device cannot automatically pay, an error condition has occurred (including 'Door Open'), or a 'Call Attendant' condition has been initiated by the player. For devices such as the 'bar-top style', it is permissible for the tower light to be shared among other gaming devices or be substituted by an audible alarm.

*NOTE: The Laboratory will make no determination as to tower light color or flash sequence. Furthermore, alternative means to alert appropriate personnel will be considered on a case-by-case basis.*

## 2.8 Manipulation of Power Supply

**2.8.1 Surges.** The gaming device shall not be adversely affected, other than resets, by surges or dips of  $\pm 20\%$  of the supply voltage.

*NOTE: It is acceptable for the equipment to reset provided no damage to the equipment or loss or corruption of data is experienced in the field. Upon reset, the game must return to its previous state. It is acceptable for the game to return to a game completion state provided the game history and all credit and accounting meters comprehend a completed game.*

## 2.9 Diverter and Drop Box Requirements

**2.9.1 Diverter.** For games that accept coins or tokens, the software shall ensure that the diverter directs coins to the hopper, or to the drop box when the hopper is full. The hopper full detector shall be monitored to determine whether a change in diverter status is required. If the state of the detector changes, the diverter shall operate as soon as possible, or within ten (10) games, after the state change, without causing a disruption of coin flow, or creating a coin jam. Hopper-less gaming devices shall always divert coins to the drop box.



2.9.2 **Drop Box.** If the gaming device is equipped to accept coins or tokens, then the following rules shall be met:

- a) Each gaming device equipped to accept coins or tokens shall contain a separate drop bucket or drop box to collect and retain all such coins or tokens that are diverted into the drop box;
- b) A drop bucket shall be housed in a locked compartment separate from any other compartment of the gaming device; and
- c) There must be a method to monitor the drop box area, even if manufactured by a different company. It is preferred that the monitoring method provide for notification to the on-line system.

## 2.10 Requirements for External Doors / External Compartments

### 2.10.1 General Requirements

- a) Doors shall be manufactured of materials that are suitable for allowing only legitimate access to the inside of the cabinet (i.e., locks, doors, and their associated hinges shall be capable of withstanding determined and unauthorized efforts to gain access to the inside of the gaming device and shall leave evidence of tampering if such an entry is made);
- b) The seal between the cabinet and the door of a locked area shall be designed to resist the entry of objects;
- c) All external doors shall be locked and monitored by door access sensors, which when opened shall cease game play (with the exception of a drop box door), disable all acceptance, and enter an error condition, which at a minimum shall illuminate the tower light and send the error condition to the on-line system, when applicable;
- d) It shall not be possible to insert a device into the gaming device that will disable a door open sensor when the gaming device's door is shut without leaving evidence of tampering; and
- e) The sensor system shall register an external door as being open when the door is moved from its fully closed and locked position, provided power is supplied to the device.

## 2.11 The Logic Door and Logic Area

**2.11.1 General Statement.** The logic area is a separately locked cabinet area (with its own locked door), which houses electronic components that have the potential to significantly influence the operation of the gaming device. There may be more than one (1) such logic area in a gaming device. The logic door shall be monitored.

**2.11.2 Electronic Components.** Electronic components that are required to be housed in one (1) or more logic areas are:

- a) A CPU and any program storage device that contains software that may affect the integrity of gaming including, but not limited to, the game accounting, system communication, and peripheral firmware devices involved in, or which significantly influence, the operation and calculation of game play, game display, game result determination, or game accounting, revenue, or security. Any exceptions will be evaluated on a case-by-case basis;
- b) Communication controller electronics and components housing the communication program storage device. Any exceptions will be evaluated on a case-by-case basis; and
- c) The NV memory back-up device, if applicable, shall be kept within a locked logic area.

## 2.12 Coin/Token and Currency Compartments

**2.12.1 General Statement.** The coin or token and currency compartments shall be locked separately from the main cabinet area. A separate coin/token compartment shall not be required for coins or tokens necessary to pay prizes in a gaming device that pays prizes through a hopper.

**2.12.2 Access to Currency.**

- a) Access to the currency storage area is to be secured via separate key locks and shall be fitted with sensors that indicate door open/close or stacker receptacle removed, provided power is supplied to the device.

- b) Access to the currency storage area is to be through two (2) levels of locks (the relevant outer door plus one other door or lock) before the currency can be removed.

## **2.13 Program Memory, Non-Volatile Memory and Non-Volatile Devices Used to Store Program Memory**

### **2.13.1 Non-Volatile (NV) Memory Requirements**

- a) The gaming device shall have the ability to retain data for all critical memory as defined herein and shall be capable of maintaining the accuracy of all information required for thirty (30) days after power is discontinued from the gaming device;
- b) For rechargeable battery types only, if the battery back-up is used as an 'off-chip' battery source, it shall re-charge itself to its full potential in a maximum of twenty-four (24) hours. The shelf life shall be at least five (5) years;
- c) NV memory that uses an off-chip back-up power source to retain its contents when the main power is switched off shall have a detection system which will provide a method for software to interpret and act upon a low battery condition before the battery reaches a level where it is no longer capable of maintaining the memory in question; and
- d) Clearing non-volatile memory shall require access to the locked logic area or other secure method provided that the method can be controlled by the regulatory body.

**2.13.2 Function of NV Memory Reset.** Following the initiation of an NV memory reset procedure (utilizing a certified NV memory clear method), the game program shall execute a routine, which initializes all bits in critical NV memory to the default state. All memory locations intended to be cleared as per the NV memory clear process shall be fully reset in all cases. For games that allow for partial NV memory clears, the methodology in doing so must be accurate.

**2.13.3 Default Reel Position or Game Display.** The default reel position or game display immediately after an NV memory reset shall not be the advertised top award on any selectable line. The default game display, upon entering game play mode, shall also not be the advertised

top award. This applies to the base game only and not to any secondary bonus features. This does not apply to games or paytables selected after the initial game play.

**2.13.4 Configuration Settings.** It shall not be possible to change a configuration setting that causes an obstruction to the electronic accounting meters without an NV memory clear. Notwithstanding, a change to the denomination must be performed by a secure means, which includes access to the locked logic area or other secure method provided that the method can be controlled by the regulator (e.g., Password or PIN-based controls).

## 2.14 Contents of Critical Memory

**2.14.1 General Statement.** Critical memory is used to store all data that is considered vital to the continued operation of the gaming device. This includes, but is not limited to:

- a) All electronic meters required in 'Electronic Metering within the gaming device,' Section 3.9, including last bill data and power up and door open metering;
- b) Current credits;
- c) Gaming device/game configuration data;
- d) Information pertaining to the last ten (10) games with the game outcome (including the current game, if incomplete). Gaming devices offering games with a variable number of free games, per base game, may satisfy this requirement by providing the capability to display the last 50 free games in addition to each base game;
- e) Software state (the last normal state, last status or tilt status the gaming device software was in before interruption);
- f) Any payable configuration information residing in memory; and
- g) It is a recommendation that, at minimum, a log of the last 100 significant events be kept in critical memory.

## 2.15 Maintenance of Critical Memory

**2.15.1 General Statement.** Critical memory storage shall be maintained by a methodology that enables errors to be identified. This methodology may involve signatures, checksums, partial checksums, multiple copies, timestamps and/or effective use of validity codes.

*NOTE: The "Maintenance of Critical Memory" section is not intended to preclude the use of alternate storage media types, such as hard disk drives, for the retention of critical data. Such alternate storage media is still expected to maintain critical data integrity in a manner consistent with the requirements in this section, as applicable to the specific storage technology implemented.*

**2.15.2 Comprehensive Checks.** Comprehensive checks of critical memory shall be made following game initiation, but prior to display of game outcome to the player. It is recommended that critical memory is continuously monitored for corruption. The methodology shall detect failures with an extremely high level of accuracy.

**2.15.3 General Statement.** An unrecoverable corruption of critical memory shall result in an error. The memory error shall not be cleared automatically and shall result in a tilt condition, which facilitates the identification of the error and causes the gaming device to cease further function. The critical memory error shall also cause any communication external to the gaming device to immediately cease. An unrecoverable critical memory error shall require a full NV memory clear performed by an authorized person.

**2.15.4 NV Memory and Program Storage Device Space.** Non-volatile memory space that is not critical to gaming device security (e.g., video or sound) is not required to be validated.

## 2.16 Program Storage Device Requirements

**2.16.1 General Statement.** The term *Program Storage Device* is defined to be the media or an electronic device that contains the critical control program components. Device types include

but are not limited to EPROMs, compact flash cards, optical disks, hard drives, solid state drives, USB drives, etc. This partial list may change as storage technology evolves. All program storage devices shall:

- a) Be housed within a fully enclosed and locked logic compartment;
- b) Be clearly marked with sufficient information to identify the software and revision level of the information stored in the device. In the case of media types on which multiple programs may reside it is acceptable to display this information via the attendant menu.
- c) Validate themselves during each processor reset;
- d) Validate themselves the first time they are used; and
- e) CD-ROM, DVD, and other optical disk-based Program Storage shall:
  - i. Not be a re-writeable disk; and
  - ii. The "Session" shall be closed to prevent any further writing.

## 2.17 Control Program Requirements

### 2.17.1 Control Program Verification.

- a) EPROM-based Program Storage
  - i. Gaming devices which have control programs residing in one or more EPROMs must employ a mechanism to verify control programs and data. The mechanism must use, at a minimum, a checksum; however, it is recommended that a Cyclic Redundancy Check (CRC) be used (at least 16-bit).
- b) Non-EPROM Program Storage shall meet the following rules:
  - i. The software shall provide a mechanism for the detection of unauthorized and corrupt software elements, upon any access, and subsequently prevent the execution or usage of those elements by the gaming device. The mechanism must employ a hashing algorithm which produces a message digest output of at least 128 bits.
  - ii. In the event of a failed authentication, after the game has been powered up, the gaming device should immediately enter an error condition and display an

appropriate error. This error shall require operator intervention to clear and shall not clear until; the data authenticates properly, following the operator intervention, or the media is replaced or corrected, and the gaming device's memory is cleared.

*NOTE: Control Program verification mechanisms will be evaluated on a case-by-case basis and approved by the regulator and the independent testing laboratory based on industry-standard security practices.*

- c) Alterable Media shall meet the following rules in addition to the requirements outlined in 2.17.1(b):
- i. Employ a mechanism which tests unused or unallocated areas of the alterable media for unintended programs or data and tests the structure of the media for integrity. The mechanism must prevent further play of the gaming device if unexpected data or structural inconsistencies are found.
  - ii. Employ a mechanism for keeping a record any time a control program component is added, removed, or altered on any alterable media. The record shall contain a minimum of the last ten (10) modifications to the media and each record must contain that date and time of the action, identification of the component affected, the reason for the modification and any pertinent validation information.

*NOTE: Alterable Program Storage does not include memory devices typically considered to be alterable which have been rendered "read-only" by either a hardware or software means.*

**2.17.2 Program Identification.** Program storage devices which do not have the ability to be modified while installed in the gaming device during normal operation, shall be clearly marked with sufficient information to identify the software and revision level of the information stored in the devices. See also Section 2.16 for specific information.

**2.17.3 Independent Control Program Verification.** The device shall have the ability to allow for an independent integrity check of the device's software from an outside source and is required for all control programs that may affect the integrity of the game. This must be

accomplished by being authenticated by a third-party device, which may be embedded within the game software (see NOTE below), by having an interface port for a third-party device to authenticate the media, or by allowing for removal of the media such that it can be verified externally. This integrity check will provide a means for field verification of the software to identify and validate the program. The test laboratory, prior to device approval, shall evaluate the integrity check method.

*NOTE: If the authentication program is contained within the game software, the manufacturer must receive written approval from the test laboratory prior to submission.*

## 2.18 Multi-Station Games

**2.18.1 General Statement.** A Multi-Station game is a gaming device unit that incorporates more than one (1) player terminal, and that only has one (1) random number generator, which is controlled by the master terminal. The master terminal, containing the game's Central Processing Unit (CPU) shall determine the outcome of the game and RNG results. The master terminal will house the game display which is shared among the player terminals. Each terminal shall meet the applicable technical standards outlined throughout this document including gaming device identification and metering. This rule does not apply to "Central Determined" type games nor does it apply to "Community Bonus" style games. There must be a method for each player to know when the next game will begin.

**2.18.2 Gaming Devices.** As applicable, the gaming devices must meet the hardware requirements and software requirements of this document.

**2.18.3 Master Terminal.** The master terminal, which contains the Random Number Generator, must meet the hardware requirements and software requirements of this document. Please note that the coin and bill validator requirements would not apply to the master terminal.



## 2.19 Printed Circuit Board (PCB)

**2.19.1 PCB Identification Requirements.** The requirements for PCB identification shall include the following:

- a) Each printed circuit board (PCB) shall be identifiable by some sort of name (or number) and revision level. Where feasible, this identification should be readily viewed without removal of the PCB from the gaming device;
- b) The top assembly revision level of the PCB shall be identifiable;
- c) If track cuts and/or patch wires are added to the PCB, then a new revision number or level shall be assigned to the assembly;
- d) Manufacturers shall ensure that circuit board assemblies, used in their gaming devices, conform functionally to the documentation and the certified versions of those PCBs that were evaluated and certified by the test laboratory; and
- e) The manufacturer's name, logo, or abbreviated symbol is recommended.

## 2.20 Patch Wires

**2.20.1 Documentation of Patch Wires & Track Cuts.** All patch wires and track cuts shall be documented, in an appropriate manner, in the relevant service manual and/or service bulletin and shall be submitted to the test laboratory. This does not prohibit required repairs in the field.

## 2.21 Switches and Jumpers

**2.21.1 General Statement.** If the gaming device contains switches and/or jumpers, the following rules shall be met:

- a) All hardware switches or jumpers shall be fully documented for evaluation by the test laboratory; and
- b) Hardware switches and/or jumpers which may alter the jurisdictional specific configuration settings, paytables, game denomination, or payout percentages must meet

applicable sections of this document and must be housed within a logic compartment of the gaming device. This includes top award changes (including progressives), selectable settings, or any other option that would affect the payout percentage.

## 2.22 Mechanical Devices Used for Displaying of Game Outcomes

**2.22.1 General Statement.** If the game has mechanical or electro-mechanical devices, which are used for displaying game outcomes, the following rules shall be observed:

- a) Electro-mechanically controlled display devices (e.g. reels or wheels) shall have a sufficiently closed loop of control so as to enable the software to detect a malfunction, and/or any attempt to interfere with the correct operation of that device. This requirement is designed to ensure that if a reel or wheel is not in the position it is supposed to be in, an error condition will be generated;
- b) Mechanical assemblies (e.g., reels or wheels) shall have some mechanism that ensures the correct mounting of the assembly's artwork, if applicable;
- c) Displays shall be constructed in such a way that winning symbol combinations match up with pay lines or other indicators; and
- d) A mechanical assembly shall be so designed that it is not obstructed by any other components.

## 2.23 Video Monitor/Touch Screens

**2.23.1 General Statement.** All video monitor touch screens shall meet the following rules:

- a) Touch screens shall be accurate and once calibrated, shall maintain that accuracy for at least the manufacturer's recommended maintenance period;
- b) A touch screen should be able to be re-calibrated without access to the gaming device cabinet other than opening the main door; and
- c) There shall be no hidden or undocumented buttons/touch points anywhere on the screen that affect game play and/or that impact the outcome of the game, except as provided for by the game rules.

## 2.24 Coin or Token, Bill Validators & Other Methods of Inserting Financial Instruments into the Gaming Device

**2.24.1 Coin or Token Acceptors.** If the gaming device uses a coin/token acceptor, the acceptor shall accept or reject the coin/token on the basis of metal composition, mass, composite makeup, or an equivalent method to securely identify a valid coin/token. In addition, it shall meet the following rules:

- a) Credit Meter Update on Coin/Token Insertion. Each valid coin/token inserted shall register the actual monetary value or the appropriate number of credits received for the denomination being used on the player's credit meter for the current game or bet meter. If registered directly as credits, the conversion rate shall be clearly stated, or be easily ascertainable from the gaming device;
- b) Coin/Token Acceptor Security Features/Error Conditions. The coin acceptor shall be designed to prevent the use of cheating methods including; but not limited to, slugging (counterfeit coins), stringing (coin pullback), the insertion of foreign objects and any other manipulation that may be deemed as a cheating technique. Appropriate correlating error conditions shall be generated and the coin acceptor shall be disabled;
- c) Rapidly Fed Coins. The gaming device shall be capable of handling rapidly-fed coins/tokens or piggy backed coins/tokens so that occurrences of cheating are eliminated. Coins traveling too fast that do not register on the player's credit meter shall be returned to the player;
- d) Direction Detectors. The gaming device shall have suitable detectors for determining the direction and the speed of coin/token travel in the receiver. If a coin/token traveling at too slow of a speed or improper direction is detected, the gaming device shall display a suitable error condition for at least thirty (30) seconds or be cleared by an attendant.
- e) Invalid Coins/Tokens. Coins/tokens deemed invalid by the acceptor shall be rejected to the coin tray and shall not be counted as credits;
- f) Coin Acceptor Error Conditions. Coin acceptors shall have a mechanism to allow software to interpret and act upon the following conditions:
  - i. Coin-in jam;
  - ii. Coin return jam;

- iii. Reverse coin-in (coin traveling wrong direction through acceptor); and
- iv. Coin too slow.

*NOTE: It is acceptable to report coin-in jam, reverse coin-in and coin too slow as a generic coin-in error*

**2.24.2 Bill Validators.** All paper currency acceptance devices shall be able to detect the entry of valid bills, coupons, ticket/vouchers, or other approved notes, as applicable, and provide a method to enable the gaming device software to interpret and act appropriately upon a valid or invalid input. The paper currency acceptance device(s) shall be electronically based and be configured to ensure that they only accept valid bills of legal tender, coupons, ticket/vouchers, or other approved notes, and must reject all other items. Rejected bills, ticket/vouchers, coupons or other approved notes should be returned to the player. Ticket/vouchers are paper slips that are treated as a unit of currency, which may be redeemed for cash or exchanged for credits on the gaming device. Coupons are paper slips primarily used for promotional purposes, which may be of a cashable or non-cashable value. The bill input system shall be constructed in a manner that protects against vandalism, abuse, or fraudulent activity. In addition, bill acceptance device(s) shall meet the following rules for all acceptable types of medium:

- a) Each valid bill, coupon, ticket/voucher or other approved note shall register the actual monetary value or the appropriate number of credits received for the denomination being used on the player's credit meter;
- b) Credit meter update upon bill insertion. Credits shall only be registered when:
  - i. The bill or other note has passed the point where it is accepted and stacked; and
  - ii. The acceptor has sent the "irrevocably stacked" message to the gaming device;
- c) Bill validator security features. Each bill validator shall be designed to prevent the use of cheating methods such as stringing, the insertion of foreign objects and any other manipulation that may be deemed as a cheating technique. A method for detection of counterfeit bills must be implemented;
- d) Credit acceptance conditions. Acceptance of any bills, ticket/vouchers, coupons or other approved notes for crediting to the credit meter shall only be possible when the gaming

device is enabled for play. Other states, such as error conditions, including door opens, audit mode and game play, shall cause the disabling of the bill validator system; with the exception of allowing credit acceptance during game play for devices that allow players to place bets on upcoming events (e.g. horse racing wagering);

- e) Bill validator error conditions. Each gaming device and/or bill validator shall have the capability of detecting and displaying the following error conditions (for bill validators, it is acceptable to disable or flash lights with respect to the bill validator itself):
- i. Stacker full. It is recommended that an explicit “stacker full” error message not be utilized since this may promote a security issue. Rather, a message such as “Bill Validator Malfunction” or similar is suggested;
  - ii. Bill jams;
  - iii. Stacker door open. (The stacker door is the door immediately prior to accessing the cashbox/stacker assembly);
  - iv. Stacker removed; and
  - v. Bill validator malfunction not specified above.

**2.24.3 Communications.** All bill validators shall communicate to the gaming device using a bi-directional protocol.

**2.24.4 Factory Set Bill Validators.** If bill validators are designed to be factory set only, it shall not be possible to access or conduct maintenance or adjustments to those bill validators in the field, other than:

- a) The selection of desired acceptance for bills, coupons, ticket/vouchers, or other approved notes and their limits;
- b) Changing of certified control program media or downloading of certified software;
- c) Adjustment of the bill validator for the tolerance level for accepting bills or notes of varying quality should not be allowed externally to the gaming device. Adjustments of the tolerance level should only be allowed with adequate levels of security in place. This can be accomplished through lock and key, physical switch settings, or other accepted methods approved on a case-by-case basis;

- d) Maintenance, adjustment, and repair per approved factory procedures; or
- e) Options that set the direction or orientation of acceptance.

**2.24.5 Tokenization.** For games that allow tokenization, the game shall receive monetary value from the bill or coin acceptor and post to the player's credit meter the entire amount inserted and display any fractional credits when applicable. It is acceptable for the device to store the fractional credits if one of the following conditions is met:

- a) The game displays the credit meter in dollars and cents; or
- b) The game informs the player that there are fractional credits stored on the device at an opportune time to avoid the possibility of the player walking away from the gaming device without such knowledge. For specifics on how residual credits should be handled and displayed, please refer to the Tokenization/Residual Credits Sections 3.10.

*NOTE: See also GLI-16, Cashless Systems for Casinos, for detailed requirements related to cashless environments.*

## **2.25 Machine Metering of Bill Validator Events**

**2.25.1 General Statement** A gaming device, which contains a bill validator device, shall maintain sufficient electronic metering to be able to display the following:

- a) Total monetary value of all items accepted;
- b) Total number of all items accepted; and
- c) A breakdown of the bills accepted:
  - i. For bills, the game shall report the number of bills accepted for each bill denomination; and
- d) For all other notes (ticket/vouchers and coupons), the game shall have a separate meter that reports the number of items accepted, not including bills.

**2.25.2 Bill Validator Recall.** A gaming device that uses a bill validator shall retain in its memory and display the information required in 2.25.1 of the last five (5) items accepted by the bill validator (i.e. Currency, ticket/vouchers, coupons, etc.) The bill validator recall log may be combined or maintained separately by item type. If combined, the type of item accepted shall be recorded with the respective timestamp.

## **2.26 Acceptable Bill Validator Locations**

**2.26.1 Bill Validator Location.** If a gaming device is equipped with a bill validator, it shall be located in a locked area of the gaming device (e.g., require opening of the main door to access), but not in the logic area. Only the bill, ticket/voucher insertion area will be accessible by the player.

## **2.27 Bill Validator Stacker Requirements**

**2.27.1 General Statement.** Each bill validator shall have a secure stacker and all accepted items shall be deposited into the secure stacker. The secure stacker and its receptacle are to be attached to the gaming device in such a manner so that they cannot be easily removed by physical force and shall meet the following rules:

- a) The bill validator device shall have the ability to detect a stacker full condition, and
- b) There shall be a separate keyed lock to access the stacker area. This keyed lock shall be separate from the main door. In addition, a separate keyed lock shall be required to remove the bills from the stacker.

## **2.28 Credit Redemption**

**2.28.1 Credit Redemption.** Available credits may be collected from the gaming device by the player pressing a collect or cash out button at any time other than during:

- a) A game being played;
- b) Audit mode;
- c) Any door open;
- d) Test mode;
- e) A Credit meter or win meter increment, unless the entire amount is placed on the meters when the collect button is pressed; or
- f) An error condition, provided the error condition prevents a valid cashout which is not supported through some other means.

**2.28.2 Cashout Limit Exceeded** If credits are collected, and the total credit value is greater than or equal to a specific limit (e.g., hopper limit for hopper games, printer limit for printer games, etc.), the game shall lock up until the credits have been paid, and the handpay is cleared by an attendant.

*NOTE: In certain situations the printing of multiple independent tickets, each below the ticket limit, is an acceptable alternative, if approved by the regulatory body.*

## 2.29 Coin Hoppers

**2.29.1 General Statement** If coin hoppers are used, they are to be monitored, in all game states, by the gaming device control program. Coin hoppers must have the ability to identify hopper coin jams, hopper empty, and extra coin paid conditions. In addition, coin hoppers shall prohibit manipulation by the insertion of a light source or any foreign object and there shall not be an abnormal payout when exposed to higher levels of electro-static discharge or if power is lost at any time during a payout.

*NOTE: Activities that result in the payout of a single extra coin (e.g. the removal and re-insertion of the hopper) are not considered an abnormal payout as long as it is accounted for as an extra coin paid.*



**2.29.2 Acceptable Hopper Locations.** If a gaming device is equipped with a hopper, it shall be located in a locked area of the gaming device, but not in the logic area or the drop box. Access to the hopper shall require at a minimum opening of a secure external door.

**2.29.3 Hopper Error Conditions.** A gaming device that is equipped with a hopper shall have mechanisms to allow control program software to interpret and act upon the following conditions:

- a) Hopper empty or timed out;
- b) Hopper jam; and
- c) Hopper runaway or extra coin paid out.

## 2.30 Printers

**2.30.1 Payment by Ticket/Voucher Printers.** If the gaming device has a printer that is used to make payments, the gaming device may pay the player by issuing a printed ticket/voucher. The printer shall print on a ticket/voucher as indicated in section 2.32 and the gaming device shall support the transmission of data to an on-line data system that records the following information regarding each payout ticket/voucher printed:

- a) Value of credits in local monetary units in numerical form;
- b) Time of day the ticket/voucher was printed in twenty-four (24) hour format showing hours and minutes;
- c) Date, in any recognized format, indicating the day, month, and year;
- d) Gaming device number or machine number;
- e) Unique validation number.

To further meet this requirement, the gaming device shall either keep a duplicate copy or print only one (1) copy to the player but have the ability to retain the last twenty-five (25) ticket/voucher-out information\* to resolve player disputes. In addition, an approved system shall be used to validate the payout ticket/voucher, and the ticket/voucher information on the central

system shall be retained at least as long as the ticket/voucher is valid at that location. If offline voucher issuance is supported, the gaming machine MUST mask all but the last 4 digits of the validation number as displayed in the twenty-five (25) ticket/voucher-out log.

\* *The ticket/voucher-out log may contain ticket/vouchers and receipts.*

**2.30.2 Printer Location.** If a gaming device is equipped with a printer, it shall be located in a locked area of the gaming device (i.e., require opening of a locked external door), but not be housed within the logic area or the drop box.

**2.30.3 Printer Error Conditions.** A printer shall have mechanisms to allow control program software to interpret and act upon the following conditions:

- a) Out of paper/paper low. It is permissible for the gaming device to not lock up for these conditions; however, there should be a means for the attendant to be alerted;
- b) Printer jam/failure; and
- c) Printer disconnected. It is permissible for the gaming device to detect this error condition when the game tries to print.

## 2.31 Ticket/Voucher Validation

**2.31.1 Payment by Ticket/Voucher Printer.** Payment by ticket/voucher printer as a method of credit redemption is only permissible when:

- a) The gaming device is linked to a computerized 'Ticket/Voucher Validation System', which allows validation of the printed ticket/voucher. Validation approval or information shall come from the Ticket/Voucher validation system in order to validate ticket/vouchers. Ticket/vouchers may be validated at any location, as long as it meets the standards in this section. Provisions must be made if communication is lost, and validation information cannot be sent to the validation system, thereby requiring the manufacturer to have an alternate method of payment. The validation system must be

- able to identify duplicate ticket/vouchers to prevent fraud by reprinting and redeeming a ticket/voucher that was previously issued by the gaming device; or
- b) By use of an approved alternative method that includes the ability to identify duplicate ticket/vouchers to prevent fraud by reprinting and redeeming a ticket/voucher that was previously issued by the gaming device.

## 2.32 Ticket/Voucher Information

**2.32.1 General Statement.** A ticket/voucher shall contain the following printed information at a minimum:

- a) Casino Name/Site Identifier (It is permissible for this information to be contained on the ticket stock itself);
- b) Machine Number (or cashier/change booth location number, if ticket/voucher creation outside of the gaming device is supported);
- c) Date and Time (24hr format which is understood by the local date/time format);
- d) Alpha and numeric dollar amount of the ticket/voucher;
- e) Ticket/voucher sequence number;
- f) Validation number (including a copy of the validation number on the leading edge of the ticket/voucher);
- g) Bar code or any machine readable code representing the validation number;
- h) Type of transaction or other method of differentiating ticket/voucher types (assuming multiple ticket/voucher types are available). Additionally, it is strongly recommended that whenever the ticket/voucher type is itself a non-cashable item and/or just a receipt, that the ticket explicitly express that it has “no cash value”;
- i) Indication of an expiration period from date of issue, or date and time the ticket/voucher will expire (24hr format which is understood by the local date/time format). It is permissible for this information to be contained on the ticket stock itself. (e.g. “Expires in One Year”); and
- j) If offline voucher issuance is supported, an offline authentication identifier must, at a minimum, be printed on the immediate next line following the leading edge validation number that in no way overwrites, or otherwise compromises, the printing of the validation

number on the ticket (not required for ticket/vouchers that are non-redeemable at a gaming machine). The offline authentication identifier must be derived by a hash, or other secure encryption method of at least 128 bits, that will uniquely identify the voucher, verify that the redeeming system was also the issuing system, and validate the amount of the voucher. For cases where a suitable authentication identifier is not printed on the voucher, the gaming device must print at most one wagering instrument after the gaming device to system communications have been lost.

*NOTE: Some of the above-listed information may also be part of the validation number or barcode. Multiple barcodes are allowed and may represent more than just the validation number.*

## 2.33 Ticket/Voucher Issuance and Redemption

**2.33.1 Ticket/Voucher Issuance.** A ticket/voucher can be generated at a gaming device through an internal printer. Ticket/vouchers that reflect partial credits may be issued automatically from a gaming device. Additionally, cashier/change booth issuance is permitted if supported by the validation system.

**2.33.2 Offline Ticket/Voucher Issuance.** The gaming device must meet the following minimum set of requirements to incorporate the ability to issue offline vouchers after a loss of communication has been identified by the gaming device.

- a) **Rules for Issuance.** The gaming device shall not issue more offline vouchers than has the ability to retain and display in the gaming device maintained ticket out log.
- b) **Request for Re-Seeding.** The gaming device shall not request validation numbers and seed, key, etc. values used in the issuance of vouchers until all outstanding offline voucher information has been fully communicated to the ticket/voucher validation system.
- c) **Rules for Re-Seeding.** The gaming device shall request a new set of validation numbers and seed, key, etc. values used in the issuance of online/offline voucher if the current list

of validation numbers and seed, key, etc. values have the possibility of being compromised which include but are not limited to the following cases:

- i. After power has been recycled, and/or
  - ii. Upon exit of a main door open condition.
- d) The values for the seed, key, etc. must never be viewable through any display supported by the gaming device. Additionally, validation numbers must always be masked when viewable through any display supported by the gaming device such that only the last 4 digits of the validation number are visible.

**2.33.3 Online Ticket/Voucher Redemption.** Ticket/vouchers may be inserted in any gaming device participating in the validation system providing that no credits are issued to the gaming device prior to confirmation of ticket/voucher validity.

**2.33.4 Offline Ticket/Voucher Redemption.** The offline ticket/voucher redemption may be validated as an internal control process at the specific gaming device that issued the ticket/voucher. A manual handpay may be conducted for the offline ticket/voucher value.

# CHAPTER 3

## 3.0 SOFTWARE REQUIREMENTS

### 3.1 Introduction

**3.1.1 General Statement** This section of the document shall set forth the technical requirements for the rules of play of the game and related player displays.

### 3.2 Rules of Play

#### 3.2.1 Display

- a) Payglass/Video Display Payglass or video displays shall be clearly identified and shall accurately state the rules of the game and the award that will be paid to the player when the player obtains a specific win.
- b) The payglass or video displays shall clearly indicate whether awards are designated in credits, currency, or some other unit.
- c) The gaming device shall reflect any change in award value, which may occur in the course of play. This may be accomplished with a digital display in a conspicuous location of the gaming device, and the game must clearly indicate as such.
- d) All payable information, rules of play, and help screen information should be able to be accessed by a player, prior to them committing to a bet. This includes unique game features, extended play, free spins, double-up, take-a-risk, auto play, countdown timers, symbol transformations, and community style bonus awards.
- e) Payglass or video displays shall not be certified if the information is inaccurate.
- f) Upcoming Wins. The game shall not advertise 'upcoming wins,' for example three (3) times pay coming soon. Notwithstanding the foregoing, a game may display such advertising if:
  - i. It is mathematically demonstrable that an award occurrence is upcoming; and

- ii. If the player is shown a graphical representation in the form of a progress indicator it must accurately depict the current progress towards such an award.
- g) **Bonus Feature Information.** Each game which offers a feature such as free games or a fever mode must display the number of feature games that are remaining, during each game.
- h) **Multiple Decks of Cards.** Any games, which utilize multiple decks of cards, shall alert the player as to the number of card decks in play.

**3.2.2 Information to be Displayed.** A gaming device shall display, or shall have displayed on the glass, the following information to the player at all times the gaming device is available for player input:

- a) The player's current credit balance;
- b) The current bet amount. This is only during the base game or if the player can add to the bet during the game;
- c) All possible winning outcomes, or be available as a menu item or on the help menu;
- d) Win amounts for each possible winning outcome, or be available as a menu or help screen item;
- e) The amount won for the last completed game (until the next game starts or betting options are modified);
- f) The player options selected (e.g., bet amount, lines played) for the last completed game (until the next game starts or a new selection is made);
- g) The denomination being played clearly displayed; and
- h) It is recommended that a disclaimer\* regarding "Malfunction Voids all Pays" (or some equivalent verbiage) be clearly displayed.

\* *NOTE: Should the above disclaimer be used, it is required that this information be permanently affixed to the exterior of the machine and not removable.*

**3.2.3 Multi-Line Games.** The following requirements shall apply to multi-line games:

- a) Each individual line to be played shall be clearly indicated by the gaming device so that the player is in no doubt as to which lines are being bet on (displaying the number of lines bet shall be sufficient to meet this requirement);
- b) The credits bet per line shall be shown (it is acceptable if the bet per line can be calculated from the number of lines bet and the total bet), and
- c) The winning payline(s) shall be clearly discernable to the player (e.g., on a video game it may be accomplished by drawing a line over the symbols on the payline(s) and/or the flashing of winning symbols and line selection box). Where there are wins on multiple lines, each winning payline may be indicated in turn. (This would not apply to electro-mechanical reel games unless technology is used which implements paylines similar to those used on video displays, e.g. backlit reels flashing for each winning payline).

**3.2.4 Game Cycle.** A game is considered complete when the final transfer to the player's credit meter takes place or when all credits wagered are lost. The following are all considered to be part of a single game:

- a) Games that trigger a free game feature and any subsequent free games;
- b) "Second screen" bonus feature(s);
- c) Games with player choice (e.g., Draw Poker or Blackjack);
- d) Games where the rules permit wagering of additional credits (e.g., Blackjack insurance or the second part of a two-part Keno game); and
- e) Double-up/Gamble features.

### **3.3 Random Number Generator (RNG) Requirements**

#### **3.3.1 Game Selection Process.**

- a) All Combinations and Outcomes Shall Be Available Each possible permutation or combination of game elements that produces winning or losing game outcomes shall be available for random selection at the initiation of each play, unless otherwise denoted by the game;



- b) No Near Miss. After selection of the game outcome, the gaming device shall not make a variable secondary decision, which affects the result shown to the player. For instance, the random number generator chooses an outcome that the game will be a loser. The game shall not substitute a particular type of loser to show to the player. This would eliminate the possibility of simulating a 'Near Miss' scenario where the odds of the top award symbol landing on the payline are limited but frequently appear above or below the payline;
- c) No Corruption from Associated Equipment. A gaming device shall use appropriate protocols to protect the random number generator and random selection process from influence by associated equipment, which may be communicating with the gaming device.

3.3.2 Random Number Generator Requirements. The use of an RNG results in the selection of game symbols or production of game outcomes. The selection shall:

- a) Be statistically independent;
- b) Conform to the desired random distribution;
- c) Pass various recognized statistical tests; and
- d) Be unpredictable.

3.3.3 Applied Tests. The test laboratory may employ the use of various recognized tests to determine whether or not the random values produced by the random number generator pass the desired confidence level of 99%. These tests may include, but are not limited to:

- a) Chi-square test;
- b) Equi-distribution (frequency) test;
- c) Gap test;
- d) Overlaps test;
- e) Poker test;
- f) Coupon collector's test;
- g) Permutation test;

- h) Kolmogorov-Smirnov test;
- i) Adjacency criterion tests;
- j) Order statistic test;
- k) Runs tests (patterns of occurrences should not be recurrent);
- l) Interplay correlation test;
- m) Serial correlation test potency and degree of serial correlation (outcomes should be independent of the previous game);
- n) Tests on subsequences; and
- o) Poisson distribution.

*NOTE: The independent test lab will choose the appropriate tests on a case-by-case basis depending on the RNG under review.*

**3.3.4 Background RNG Activity Requirement.** The RNG shall be cycled continuously in the background between games and during game play at a speed that cannot be timed by the player. The test laboratory recognizes that some time during the game, the RNG may not be cycled when interrupts may be suspended. The test laboratory recognizes this but shall find that this exception shall be kept to a minimum.

**3.3.5 RNG Seeding.** The first seed shall be randomly determined by an uncontrolled event. After every game there shall be a random change in the RNG process (new seed, random timer, delay, etc.) This will verify the RNG doesn't start at the same value, every time. Alternatively, it is permissible not to use a random seed; however, the manufacturer must ensure that games will not synchronize.

**3.3.6 Live Game Correlation.** Unless otherwise denoted on the payglass, where the gaming device plays a game that is recognizable to be a simulation of a live casino game such as Poker, Blackjack, Roulette, etc., the same probabilities associated with the live game shall be evident in the simulated game. For example, the odds of getting any particular number in Roulette where there is a single zero (0) and a double zero (00) on the wheel, shall be 1 in 38; the odds of drawing a specific card or cards in Poker shall be the same as in the live game.

**3.3.7 Symbol Probability.** For game types (such as spinning reel games or video spinning reel games), unless otherwise denoted on the payglass, the mathematical probability of a symbol appearing in a position for any game outcome shall be constant.

**3.3.8 Card Games.** The requirements for games depicting cards being drawn from a deck are the following:

- a) At the start of each game/hand, the cards shall be drawn fairly from a randomly-shuffled deck; the replacement cards shall not be drawn until needed, and in accordance with game rules, to allow for multi-deck and depleting decks;
- b) Cards once removed from the deck shall not be returned to the deck except as provided by the rules of the game depicted, and
- c) As cards are removed from the deck they shall be immediately used as directed by the rules of the game (i.e., the cards are not to be discarded due to adaptive behavior by the gaming device).

*NOTE: It is acceptable to draw random numbers for replacement cards at the time of the first hand random number draw, provided the replacement cards are sequentially used as needed.*

**3.3.9 Ball Drawing Games.** The requirements for games depicting balls being drawn from a pool (e.g., Keno) are as follows:

- a) At the start of each game, only balls applicable to the game are to be depicted. For games with bonus features and additional balls that are selected, they should be chosen from the original selection without duplicating an already chosen ball;
- b) The pool shall not be re-mixed except as provided by the rules of the game depicted; and
- c) As balls are drawn from the pool, they shall be immediately used as directed by the rules of the game (i.e., the balls are not to be discarded due to adaptive behavior by the gaming device).

### 3.3.10 Scaling Algorithms

- a) If a random number with a range shorter than that provided by the RNG is required for some purpose within the gaming device, the method of re-scaling, (i.e., converting the number to the lower range), is to be designed in such a way that all numbers within the lower range are equally probable.
- b) If a particular random number selected is outside the range of equal distribution of re-scaling values, it is permissible to discard that random number and select the next in sequence for the purpose of re-scaling.

**3.3.11 Mechanical Based RNG Games.** Mechanical-based RNG games are games that employ the laws of physics in any way to generate the outcome of the game. All mechanical-based RNG games must meet the requirements of this document with the exception of Sections 3.3.4, 3.3.5, and 3.3.10 that dictate the requirements for electronic random number generators. In addition, mechanical-based RNG games must meet the following rules:

- a) The test laboratory will test multiple iterations to gather enough data to verify the randomness. In addition, the manufacturer may supply live data to assist in this evaluation;
- b) The mechanical pieces must be constructed of materials to prevent decomposition of any component over time (e.g., a ball shall not disintegrate);
- c) The properties of physical items used to choose the selection shall not be altered; and
- d) The player shall not have the ability to physically interact or come into physical contact or manipulate the machine physically with the mechanical portion of the game.

*NOTE: The laboratory reserves the right to require replacement parts after a pre-determined amount of time for the game to comply with Rule 3.3.11(b) above. In addition, the device(s) may require periodic inspections to ensure the integrity of the device. Each mechanical based RNG game shall be reviewed on a case-by-case basis.*

### 3.4 Payout Percentages, Odds and Non-Cash Awards

**3.4.1 Software Requirements for Percentage Payout.** Each game shall theoretically payout a minimum of seventy-five percent (75%) during the expected lifetime of the game (i.e., progressives, bonus systems, merchandise, etc. shall not be included in the percentage payout if they are external to the game).

*NOTE: The laboratory will provide the minimum and maximum theoretical payout percentage for the game within the certification report, unless otherwise noted. Additional external awards added to a game will require a re-evaluation of the theoretical payout percentage, considering the value of the award and possibly other factors. The laboratory will re-evaluate a game's theoretical payout percentage if/when requested.*

- a) **Optimum Play Used for Skill Games.** Gaming devices that may be affected by player skill shall meet the requirement of this section when using a method of play that will provide the greatest return to the player over a period of continuous play.
- b) **Minimum Percentage Requirement Met at All Times.** The minimum percentage requirement of 75% shall be met at all times. The minimum percentage requirement shall be met when playing at the lowest end of a non-linear payable (i.e., if a game is continuously played at a minimum bet level for the cycle of the game and the theoretical RTP is lower than the minimum percentage, then the payable is not permissible). This example also extends to games such as Keno, whereby the continuous playing of any spot combination results in a theoretical return to player lower than the minimum percentage.
- c) **Double-up or Gamble.** The double-up or gamble options shall have a theoretical return to the player of one hundred percent (100%).

**3.4.2 Multiple Percentages.** For games that offer multiple percentages, please refer to the 'Configuration Settings' requirements in Section 3.13.4 of this document.

**3.4.3 Odds.** The highest single advertised payout on each gaming device shall occur, statistically, at least once in 50,000,000 games. This does not apply to multiple awards won together on the same game play where the aggregate prize is not advertised. This odds rule shall

not apply to games which make it possible for a player to win the highest win, multiple times through the use of free games. This rule does apply to each wager that wins the maximum award. If the highest advertised award can occur within a bonus or free game feature, the odds calculation shall include the odds of obtaining the bonus round including the odds to achieve the top award.

#### **3.4.4 Merchandise Prizes in Lieu of Cash Awards.**

- a) Limitations (annuities – lump sum or the payment plan) on the prize amount of merchandise shall be clearly explained to the player on the game that is offering such a prize.

### **3.5 Bonus Games**

**3.5.1 Bonus Games.** Games that have awards calculated that occur from game play within the base game's cycle (e.g. bonus features, including free games) shall meet the following:

- a) The game shall display clearly to the player which game rules apply to the current game state. These rules shall be made available to the player prior to the start of the bonus game versus during the bonus game.
- b) The game shall clearly display to the player possible win amount ranges, multiplier ranges, etc. that can be obtained from bonus play.
- c) A game which offers a bonus game, other than those that occur randomly, shall display to the player sufficient information to indicate the current status towards the triggering of the next bonus game.
- d) If the game requires obtaining several events/symbols toward a feature, the number of events/symbols needed to trigger the bonus shall be indicated along with the number of events/symbols collected at any point.
- e) The game shall not adjust the likelihood of a bonus occurring, based on the history of prizes obtained in previous games (i.e., games shall not adapt their theoretical return to the player based on past payouts).

- f) If a game's bonus is triggered after accruing a certain number of events/symbols or combination of events/symbols of a different kind over multiple games, the probability of obtaining like events/symbols shall not deteriorate as the game progresses (e.g., for identical events/symbols it is not permitted that the last few events/symbols needed are more difficult to obtain than the previous events/symbols of that kind).
- g) The game shall make it clear to the player that they are in this mode to avoid the possibility of the player walking away from the gaming device not knowing the game is in a bonus mode.
- h) Bonus game awards are part of the game cycle with predetermined award values. Bonus play award contributions to the program payout percentage are calculated consistent with awards of the regular game cycle. Specifically, if the cycle for bonus play awards is different from the base game cycle, then the bonus play awards, occurring within the base game's cycle, will be calculated as part of the game's payout; and
- i) The game shall display the rules of play for the bonus game awards, the rewards associated with each bonus play award, and the character combinations that will result in the specific payouts. For bonus play awards achieved by obtaining specific game results, the progress of the award shall be displayed.

**3.5.2 Player Selection or Interaction in Bonus Games** All gaming devices which offer a bonus game or extended feature which requires player selection or interaction are prohibited from automatically making selections or initiating games or features unless the gaming device meets the requirements listed immediately below and explains the mechanism for auto-initiation or selection on the device glass or video display.

- a) The patron is presented with a choice and specifically acknowledges his intent to have the gaming device auto-initiate the bonus or extended play feature by means of a button press or other physical/machine interaction.
- b) The bonus or extended feature provides only one choice to the patron (i.e., press button to spin wheel). In this case, the device may auto-initiate the bonus or extended feature after a time out period of at least two (2) minutes.

- c) The bonus of extended feature is offered as part of community play that involves two or more patrons and where the delay of an offered selection or game initiation will directly impact the ability for other patrons to continue their bonus or extended feature. Prior to automatically making selections or initiating a community based bonus or feature the patron must be made aware of the time remaining in which they must make their selection or initiate play.

### 3.6 Extra Credits Wagered during Bonus Games

**3.6.1 General Statement** If a bonus or feature game requires extra credits to be wagered during the bonus and the game accumulates all winnings (from the trigger and the feature) to a temporary "win" meter (rather than directly to the credit meter), the game shall:

- a) Provide a means where winnings on the temporary meter can be bet (via the credit meter) to allow for instances where the player has an insufficient credit meter balance to complete the feature;
- b) Transfer all credits on the temporary meter to the credit meter upon completion of the feature;
- c) Not exceed the max bet limit, if one is set, and
- d) Provide the player an opportunity NOT to participate.

### 3.7 Mystery Awards

**3.7.1 General Statement** It is acceptable for games to offer a "mystery award" (an award that is not tied to any specific symbol combination) however, the game must indicate the maximum amount the player could potentially win. If the minimum amount that could potentially be awarded is not displayed, it will be assumed to be '0'. In addition, both a minimum and maximum amount must be displayed for any mystery award if the method to receive the award involves strategy or skill. This would include methods where the value of the payable is used in order to make decisions that could increase the return to the player (e.g., video poker).



### 3.8 Multiple Games on the Gaming Device

**3.8.1 General Statement.** A multi-game is defined as a game which can simultaneously be configured for use with multiple themes and/or multiple pay tables.

#### **3.8.2 Selection of Game for Display.**

- a) The methodology employed by a player to select a particular game for play on a multi-game gaming device shall be clearly explained to the player on the gaming device, and be easily followed.
- b) The gaming device shall be able to clearly inform the player of all games, their rules and/or the paytables, before the player must commit to playing them.
- c) The player shall at all times be made aware of which game theme has been selected for play and is being played, as applicable.
- d) When multiple game themes are offered for play, the player shall not be forced to play a game by just selecting a game title, unless the game screen clearly indicates the game selection is unchangeable. If not disclosed, the player shall be able to return to the main menu.
- e) It should not be possible to select or start a new game before the current play is completed and all relevant meters have been updated, including features, gamble and other options of the game, unless the action to start a new game terminates the current play in an orderly manner.
- f) The set of games or the paytable(s) offered to the player for selection can be changed only by a secure certified method which includes turning on and off games available for play. The rules outlined in 'Configuration Setting' of this document shall govern the NV memory clear control requirements for these types of selections. However, for games that keep the previous paytable's (the paytable just turned off) data in memory, an NV memory clear is not required.
- g) No changes to the set of games, or to the paytable(s) offered to the player for selection are permitted while there are credits on the player's credit meter or while a game is in progress, notwithstanding specific protocol features which allow such changes to be made in a controlled fashion.

### 3.9 Electronic Metering within the Gaming Device

**3.9.1 Credit Meter Units and Display.** The credit meter shall be maintained in credits or cash value (i.e. applicable local currency) and shall at all times indicate all credits or cash available for the player to wager or cashout with the exception of when the player is viewing an informational screen such as a menu or help screen item. This should be displayed to the player unless a tilt condition or malfunction exists.

**3.9.2 Tokenization.** If the current local currency amount is not an even multiple of the tokenization factor for a game or the credit amount has a fractional value, the credits displayed for that game may be displayed and played as a truncated amount, (i.e., fractional part removed). However, the fractional credit amount shall be made available to the player when the truncated credit balance is zero. The fractional amount is also known as 'Residual Credit,' see also, 'Tokenization-Residual Credits,' Section 3.10.

**3.9.3 Credit Meter - Incrementing.** The value of every prize at the end of a game shall be added to the player's credit meter, except for handpays or merchandise, see also 'Merchandise Prizes In Lieu Of Cash Awards,' Section 3.4.4. The value of all prize(s) awarded shall be added to the player's credit meter, except for handpays or merchandise.

**3.9.4 Progressives** Progressive awards may be added to the credit meter if either:

- a) The credit meter is maintained in the local currency amount format, or
- b) The progressive meter is incremented to whole credit amounts, or
- c) The progressive prize in local currency amount format is converted properly to credits upon transfer to the player's credit meter in a manner that does not mislead the player (i.e., make unqualified statement "wins meter amount" and then rounds down on conversion or cause accounting imbalances)

*NOTE: See also, GLI-12 Progressive Gaming Devices in Casinos.*

**3.9.5 Collect Meter.** There shall be a collect meter, which will show the number of credits or cash, collected by the player upon a cashout. This should be displayed to the player unless a tilt condition or malfunction exists. The number of credits or cash collected shall be subtracted from the player's credit meter and added to the collect meter. This meter may include handpays.

**3.9.6 Software Meter Information Access.** The software meter information shall only be accessible by an authorized person and must have the ability to be displayed on demand using a secure means.

**3.9.7 Electronic Accounting and Occurrence Meters** Electronic accounting meters shall be at least ten (10) digits in length. These meters shall be maintained in credit units equal to the denomination, or in dollars and cents. If the meter is being used in dollars and cents format, eight (8) digits must be used for the dollar amount and two (2) digits used for the cents amount. Devices configured for multi-denomination play shall display the units in dollars and cents. The meter must roll over to zero upon the next occurrence, any time the meter exceeds ten (10) digits and after 9,999,999,999 has been reached or any other value that is logical. Occurrence meters shall be at least eight (8) digits in length however, are not required to automatically roll over. Meters shall be labeled so they can be clearly understood in accordance with their function. All gaming devices shall be equipped with a device, mechanism or method for retaining the value of all meter information specified in this Section (3.9) which must be preserved in the event of power loss to the gaming device. The required electronic meters are as follows (accounting meters are designated with an asterisk '\*'):

- a) **Coin In\***. The gaming device must have a meter that accumulates the total value of all wagers, whether the wagered amount results from the insertion of coins, tokens, currency, deduction from a credit meter or any other means. This meter shall:
- i. Not include subsequent wagers of intermediate winnings accumulated during game play sequence such as those acquired from "double up" games;
  - ii. For all games, provide the coin in information, on a per payable basis, to calculate a weighted average theoretical payback percentage; and

- iii. For paytables with a difference in theoretical payback percentage which exceeds 4 percent between wager categories, it is recommended that the device maintain and display coin in meters and the associated theoretical payback percentage, for each wager category with a different theoretical payback percentage, and calculate a weighted average theoretical payback percentage for that payable.

*NOTE: Wager categories, as defined above, do not apply to Keno or Skill Games*

- b) Coin Out\*. The gaming device must have a meter that accumulates the total value of all amounts directly paid by the device as a result of winning wagers, whether the payout is made from the hopper, to a credit meter or by any other means. This meter will not record amounts awarded as the result of an external bonusing system or a progressive payout;
- c) Coin Drop\*. The gaming device must have a meter that accumulates the total value of coins or tokens diverted to the drop;
- d) Attendant Paid Jackpots\*. The gaming device must have a meter that accumulates the total value of credits paid by an attendant resulting from a single game cycle, the amount of which is not capable of being paid by the gaming device itself. This does not include progressive amounts or amounts awarded as a result of an external bonusing system. This meter is only to include awards resulting from specifically identified amounts listed in the manufacturer's par sheet. Jackpots which are keyed to the credit meter shall NOT increment this meter;
- e) Attendant Paid Cancelled Credits\*. The gaming device must have a meter that accumulates the total value paid by an attendant resulting from a player initiated cash-out that exceeds the physical or configured capability of the device to make the proper payout amount;
- f) Physical Coin In\*. The gaming device must have a meter that accumulates the total value of coins or tokens inserted into the device;
- g) Physical Coin Out\*. The gaming device must have a meter that accumulates the value of all coins or tokens physically paid by the device;

- h) Bill In\*. The gaming device must have a meter that accumulates the total value of currency accepted. Additionally, the gaming device must have a specific occurrence meter for each denomination of currency accepted that records the number of bills accepted of each denomination;
- i) Ticket and/or Voucher In\*. The gaming device must have a meter that accumulates the total value of all gaming device vouchers accepted by the device; (A.K.A. Ticket-In);
- j) Ticket and/or Voucher Out\*. The gaming device must have a meter that accumulates the total value of all gaming device vouchers and payout receipts issued by the device; (A.K.A. Ticket-Out);
- k) Electronic Funds Transfer In\* (EFT In). The machine must have a meter "EFT In" that accumulates the total value of cashable credits electronically transferred from a financial institution to the gaming device through a cashless wagering system;
- l) Cashless Account Transfer In\* (A.K.A. WAT In-Wagering Account Transfer In). The gaming device must have a meter that accumulates the total value of cashable credits electronically transferred to the gaming device from a wagering account by means of an external connection between the device and a cashless wagering system;
- m) Cashless Account Transfer Out\*. (A.K.A. WAT Out-Wagering Account Transfer Out) The gaming device must have a meter that accumulates the total value of cashable credits electronically transferred from the gaming device to a wagering account by means of an external connection between the device and a cashless wagering system;
- n) Non-Cashable Electronic Promotion In\*. The gaming device must have a meter that accumulates the total value of non-cashable credits electronically transferred to the gaming device from a promotional account by means of an external connection between the device and a cashless wagering system;
- o) Cashable Electronic Promotion In\*. The gaming device must have a meter that accumulates the total value of cashable credits electronically transferred to the gaming device from a promotional account by means of an external connection between the device and a cashless wagering system;
- p) Non-Cashable Electronic Promotion Out\*. The gaming device must have a meter that accumulates the total value of non-cashable credits electronically transferred from the

- gaming device to a promotional account by means of an external connection between the device and a cashless wagering system;
- q) Cashable Electronic Promotion Out\*. The gaming device must have a meter that accumulates the total value of cashable credits electronically transferred from the gaming device to a promotional account by means of an external connection between the device and a cashless wagering system;
  - r) Cashable Promotional Credit Wagered. If supported by function, the gaming device must have a meter that accumulates the total value of promotional cashable credits which are wagered. This includes credits that are transferred to the machine electronically or through the acceptance of coupon or voucher;
  - s) Coupon Promotion In\*. The gaming device must have a meter that accumulates the total value of all gaming device promotional coupons accepted by the device;
  - t) Coupon Promotion Out\*. The gaming device must have a meter that accumulates the total value of all gaming device promotional coupons issued by the device;
  - u) Machine Paid External Bonus Payout\*. The gaming device must have a meter that accumulates the total value of additional amounts awarded as a result of an external bonusing system and paid by the device;
  - v) Attendant Paid External Bonus Payout\*. The gaming device must have a meter that accumulates the total value of amounts awarded as a result of an external bonusing system paid by an attendant. Bonus payouts which are keyed to the credit meter, shall not increment this meter;
  - w) Attendant Paid Progressive Payout\*. The gaming device must have a meter that accumulates the total value of credits paid by an attendant as a result of progressive awards that are not capable of being paid by the device itself. Progressive payouts which are keyed to the credit meter shall not increment this meter;
  - x) Machine Paid Progressive Payout\*. The gaming device must have a meter that accumulates the total value of credits paid as a result of progressive awards paid directly by the device. This meter does not include awards paid as a result of an external bonusing system;
  - y) Games Played. The gaming device must have meters that accumulates the number of games played;

- i. Since power reset;
  - ii. Since external door close; and
  - iii. Since game initialization (NV memory clear).
- z) External Doors. The machine must have meters that accumulates the number of times the any external cabinet door that allows access to the locked logic area or currency compartment which was opened since the last NV memory clear, provided power is supplied to the device.
- aa) Stacker Door. The gaming device must have a meter that accumulates the number of times the stacker door has been opened since the last NV memory clear provided power is supplied to the device; and
- bb) Progressive Occurrence. The gaming device must have a meter that accumulates the number of times each progressive meter is activated. See also *GLI-12 Progressive Gaming Devices in Casinos*. (The above rule shall be interpreted as requiring that the controller, whether that is the gaming device itself, or an external progressive controller, when configured for progressive functionality, shall provide for this occurrence meter for each progressive level offered.)

**3.9.8 Payable Specific Meters**. In addition to the one set of master electronic accounting meters required above, each individual game available for play shall have the payable meters “Credits Bet” (i.e., Coin In) and “Credits Won” (i.e., Coin Out) in either credits or dollars. Even if a double up or gamble game is lost, the initial win amount, and not credits bet amount, shall be recorded in the game-specific meters.

**3.9.9 Double Up or Gamble Meters**. For each type of double-up or gamble feature offered, there shall be sufficient meters to determine the feature’s actual return percentage, which shall increment accurately every time a double-up or gamble play concludes, including all amounts wagered and won during interim plays. These meters shall reflect amount wagered and amount won. If the gaming device does not supply accounting for the double-up or gamble information, the feature must provide for the ability to be disabled.

### 3.10 Tokenization – Residual Credits

**3.10.1 General Statement.** If residual credits exist, the manufacturer may provide a residual credit removal feature or any allowable cashout method to remove the residual credits or return the gaming device to normal game play (i.e., leave the residual credits on the player's credit meter for betting). In addition:

- a) Residual credits bet on the residual credit removal play shall be added to the Coin-In meter. Residual credits won as a result of the residual credit removal play shall be added to the Coin-Out meter;
- b) If the residual credit removal play is won, the value of the win shall either:
  - i. Increment the player's credit meter; or
  - ii. Be automatically dispensed, and the value of the coin(s) added to the Coin-Out meter;
- c) All other appropriate gaming device meters shall be appropriately updated;
- d) If the residual credit removal play is lost, all residual credits are to be removed from the credit meter;
- e) If the residual credits are cashed out rather than wagered, the gaming device shall update the relevant meters (e.g., cancelled credit);
- f) The residual credit removal play feature shall return at least seventy-five percent (75%) to the player over the life of the game;
- g) The player's current options and/or choices shall be clearly indicated electronically or by video display. These options shall not be misleading;
- h) If the residual credit removal play offers the player a choice to complete the game (e.g., select a hidden card), the player shall be also given the option of exiting the residual credit removal mode and returning to the previous mode;
- i) It shall not be possible to confuse the residual credit removal play with any other game feature (e.g., double-up or gamble);
- j) If the residual credit removal play is offered on a multi-game gaming device, the play shall (for meter purposes of each individual game) either be considered to be a part of the game from which the play was invoked, or be treated as a separate game; and



- k) The last game recall shall either display the residual credit removal play result or contain sufficient information (e.g., updated meters) to derive the result.

### 3.11 Communication Protocol

**3.11.1 General Statement** For gaming devices that are required to communicate with an on-line system, the device must accurately function as indicated by the communication protocol that is implemented. In addition, please refer to the *GLI-13 Standards for On-line Monitoring and Control Systems (MCS) and Validation Systems in Casinos*.

**3.11.2 Protection of Sensitive Information** The gaming machine must not allow any information contained in communication to or from the online monitoring system that is intended by the communication protocol to be protected, or which is of a sensitive nature, to be viewable through any display mechanism supported by the gaming device. This includes, but is not limited to, validation information, secure PINs, credentials, or secure seeds and keys.

### 3.12 Error Conditions

**3.12.1 General Statement** Gaming devices shall be capable of detecting and displaying the following error conditions and illuminate the tower light for each or sound an audible alarm. Error conditions shall cause the gaming device to lock up and require attendant intervention except as noted within this section. Error conditions shall be cleared either by an attendant or upon initiation of a new play sequence after the error has cleared except for those denoted by an "\*" which will require further evaluation since deemed as a critical error. Error conditions shall be communicated to an on-line monitoring and control system, where applicable:

**3.12.2 Door Open Error Conditions**

- a) All external doors (e.g., main, belly, top box);
- b) Drop box door;
- c) Stacker door; and

- d) Any other currency storage areas that have a door.

### **3.12.3 Other Error Conditions.**

- a) NV memory error\* (for any critical memory);
- b) Low NV memory battery for batteries external to the NV memory itself or low power source;
- c) Program error or authentication mismatch\*;
- d) Reel spin errors. The specific reel number shall be identified in the error code. This should be detected under the following conditions:
- i. A mis-index condition for rotating reels, that affects the outcome of the game;
  - ii. In the final positioning of the reel, if the position error exceeds one-half of the width of the smallest symbol excluding blanks on the reel strip; and
  - iii. Microprocessor-controlled reels shall be monitored to detect malfunctions such as a reel which is jammed, or is not spinning freely, or any attempt to manipulate their final resting position.

**3.12.4 Error Codes.** For games that use error codes, a description of gaming device error codes and their meanings shall be affixed inside the gaming device. This does not apply to video-based games; however, video-based games shall display meaningful text as to the error conditions.

## **3.13 Program Interruption & Resumption**

**3.13.1 Interruption.** After a program interruption (e.g., processor reset), the software shall be able to recover to the state it was in immediately prior to the interruption occurring. It is acceptable for the game to return to a game completion state provided the game history and all credit and accounting meters comprehend a completed game. If a power failure occurs during acceptance of a bill or other note, the bill validator shall give proper credits or return the note, notwithstanding that there may be a small window of time where power may fail and credit may not be given. In this case, the window shall be less than one (1) second.

**3.13.2. Restoring Power.** If a gaming device is powered down while in an error condition, then upon restoring power, the specific error message shall still be displayed and the gaming device shall remain locked-up. This is unless power down is used as part of the error reset procedure, or if on power up or door closure, the gaming device checks for the error condition and detects that the error is no longer in existence.

**3.13.3. Simultaneous Inputs.** The program shall not be adversely affected by the simultaneous or sequential activation of the various inputs and outputs, such as 'play buttons', which might, whether intentionally or not, cause malfunctions or invalid results.

**3.13.4. Resumption.** On program resumption, the following procedures shall be performed as a minimum requirement:

- a) Any communications to an external device shall not begin until the program resumption routine, including self-tests, is completed successfully, and
- b) The bill validator device shall perform a self-test at each power up. In the event of a self-test failure, the bill validator shall automatically disable itself (i.e., enter bill reject state) until the error state has been cleared.

**3.13.5. Microprocessor Controlled Reels** (e.g., stepper motor reels) shall re-spin automatically to the last valid play-mode result when the play mode is re-entered, and the reel positions have been altered (e.g., the main door is closed, power is restored, audit mode is exited, or an error condition cleared).

### **3.14 Door Open/Close**

**3.14.1. Required Door Metering** The software shall be able to detect access to the following doors or secure areas provided power is supplied to the device:

- a) All external doors (e.g., main, belly, top box),
- b) Drop box door,

- c) Stacker door; and
- d) Any other currency storage areas that have a door.

**3.14.2 Door Open Procedures** When any one of the gaming device's external doors are opened, the game shall cease play, enter an error condition, display an appropriate error message, disable coin acceptance and bill acceptance, and either sound an alarm or illuminate the tower light or both.

**3.14.3 Door Close Procedures** When all of the gaming device's external doors are closed, the game shall return to its original state and display an appropriate error message, until the next game has ended.

### **3.15 Taxation Reporting Limits**

**3.15.1 General Statement** The game shall be capable of entering a lock up condition if any awards from a single game cycle are in excess of a limit that is required by a taxing jurisdiction. Notwithstanding the foregoing, it is permissible to provide a mechanism to accrue W2G eligible winnings to a separate meter. This meter must not provide for the ability to place wagers and when collected by the player must lockup as required by a taxing jurisdiction.

### **3.16 Test/Diagnostic Mode (Demo Mode)**

**3.16.1 General Statement** If the gaming device is in a test, diagnostic or demo mode, any test that incorporates credits entering or leaving the gaming device (e.g., a hopper test) shall be completed on resumption of normal operation. In addition, there shall not be any mode other than normal operation (ready for play) that increments any of the electronic meters. Any credits on the gaming device that were accrued during the test, diagnostic or demo mode shall be automatically cleared before the mode is exited. Specific meters are permissible for these types of modes provided the meters indicate as such.

**3.16.2 Entry to Test/Diagnostics Mode.** The opening of the main cabinet door of the gaming device may automatically place the gaming device in a service or test/diagnostic mode. Test/diagnostics mode may also be entered, via an appropriate instruction, from an attendant during an audit mode access. These modes should not be accessible to the player.

**3.16.3 Exiting From Test/Diagnostic Mode.** When exiting from test-diagnostic mode, the game shall return to the original state it was in when the test mode was entered.

**3.16.4 Test Games.** If the device is in a game test mode, the gaming device shall clearly indicate that it is in a test mode, not normal play.

### **3.17 Game History Recall**

**3.17.1 Number Of Last Games Required.** Information on at least the last ten (10) games is to be always retrievable on the operation of a suitable external key-switch, or another secure method that is not available to the player.

**3.17.2 Last Play Information Required.** Last play information shall provide all information required to fully reconstruct the last ten (10) games. All values shall be displayed; including the initial credits or ending credits, credits bet, and credits won, payline symbol combinations and credits paid whether the outcome resulted in a win or loss. This information can be represented in graphical or text format. If a progressive was awarded, it is sufficient to indicate the progressive was awarded and not display the value. This information should include the final game outcome, including all player choices and bonus features. In addition, include the results of double-up or gamble (if applicable).

*NOTE: For "Last Play Information" stated above, it is allowable to display values in currency in place of 'credits'.*

**3.17.3 Bonus Rounds.** The ten (10) game recall shall reflect bonus rounds in their entirety. If a bonus round lasts 'x number of events,' each with separate outcomes, each of the 'x events' shall

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be displayed with its corresponding outcome, regardless if the result is a win or loss. The recall shall also reflect position dependent events if the outcome results in an award. Gaming devices offering games with a variable number of free games, per base game, may satisfy this requirement by providing the capability to display the last 50 free games in addition to each base game.

# CHAPTER 4

## 4.0 TOURNAMENTS

### 4.1 Tournament Description

**4.1.1 General Statement.** A tournament is an organized event that permits a player to engage in competitive play against other players.

### 4.2 Tournament Program

**4.2.1 General Statement.** Each gaming device may be equipped with a certified program, which allows for tournament mode play. The tournament option shall default to disabled. If tournament is an option, it shall be enabled by a regulator-approved and controlled method requiring manual intervention and/or total replacement of the logic board with a certified tournament board.

### 4.3 Tournament - Hardware

**4.3.1 General Statement.** The game shall comply with the requirements set forth in Chapter 3 of this document, if applicable.

### 4.4 Tournament - Software

**4.4.1 General Statement.** No gaming device, while enabled for tournament play shall accept credits from any source, nor pay out credits in anyway, but shall utilize credit points only. Tournament credits shall have no cash value. These games shall not increment any mechanical or electro-mechanical meters unless they are meters designed exclusively for use with tournament software, and shall not communicate any tournament-related accounting information to the

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system. The percentage requirements as addressed in Section 3.4 are waived for tournament games.

**4.4.2 Gaming Device Settings.** All gaming devices used in a single tournament shall utilize the same electronics and machine settings as other gaming devices involved in the tournament, including reel speed settings





## STANDARD SERIES

### GLI-21:

### Client-Server Systems

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Version: 2.2

Release Date: September 6, 2011



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## **ABOUT THIS STANDARD**

This Standard has been produced by **Gaming Laboratories International, LLC** for the purpose of providing independent certifications to suppliers under this Standard and complies with the requirements set forth herein.

A supplier should submit equipment with a request that it be certified in accordance with this Standard. Upon certification, Gaming Laboratories International, LLC will provide a certificate of compliance evidencing the certification to this Standard.

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# CHAPTER 1

## 1.0 OVERVIEW - STANDARDS FOR CLIENT-SERVER SYSTEMS (CSS)

### 1.1 Introduction

**1.1.1 General Statement.** Gaming Laboratories International, LLC (GLI) has been testing gaming equipment since 1989. Over the years, we have developed numerous standards for jurisdictions all over the world. In recent years, many jurisdictions have opted to ask for technical standards without creating their own standards. In addition, with technology changing almost monthly, new technology is not being incorporated quickly enough into existing standards due to the long process of administrative rulemaking. This document, *GLI Standard 21*, will set forth the technical Standards for Client-Server Systems CSS.

**1.1.2 Document History.** This document is an essay from many standards documents from around the world. Some GLI has written; some, such as the Australian and New Zealand National Standard and the Nevada Gaming and Control Board were written by Industry Regulators with input from Test Laboratories and machine manufacturers. We have taken each of the standards' documents, merged each of the unique rules together, eliminating some rules and updating others, in order to reflect both the change in technology and the purpose of maintaining an objective, factual standard. We have listed below, and give credit to, agencies whose documents we reviewed prior to writing this Standard. It is the policy of Gaming Laboratories International, LLC to update this document as often as possible to reflect changes in technology, testing methods, or cheating methods. This document will be distributed FREE OF CHARGE to all those who request it. This standard and all others may be obtained by downloading it from our website at [www.gaminglabs.com](http://www.gaminglabs.com) or by writing to us at:

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## 1.2 Acknowledgment of Other Standards Reviewed

**1.2.1 General Statement.** These Standards have been developed by reviewing and using portions of the documents from the organizations listed below. We acknowledge the regulators who have assembled these documents and thank them:

- a) The Queensland Office of Gaming Regulation;
- b) The Tasmanian Department of Treasury and Finance, Revenue and Gaming Division;
- c) The ACT Office of Financial Management;
- d) The New South Wales Department of Gaming and Racing;
- e) The New Zealand Casino Control Authority;
- f) The New Zealand Department of Internal Affairs, Gaming Racing & Censorship Division;
- g) The Northern Territory Racing and Gaming Authority;
- h) The South Australian Office of the Liquor and Gaming Commissioner;
- i) The Victorian Casino and Gaming Authority;
- j) The Western Australian Office of Racing Gaming and Liquor;
- k) The South African Bureau of Standards;
- l) The Nevada Gaming and Control Board;
- m) NIST Special Publication 800-57 *Recommendations for Key Management – Part 2: Best Practices for Key Management Organization*;
- n) Nevada Regulatory 14 Technical Standards; and
- o) GSA G2S and S2S protocol standards.

## 1.3 Purpose of Technical Standards

**1.3.1 General Statement** The Purpose of this Technical Standard is as follows:

- a) To eliminate subjective criteria in analysing and certifying Client Terminal game operation.
- b) To only test those criteria that impact the credibility and integrity of Client Terminal



- gaming from both the Revenue Collection and Player's play point of view.
- c) To create a standard that will ensure that the server-based and server-supported games are fair, secure, and able to be audited and operated correctly.
  - d) To distinguish between local public policy and laboratory criteria. At GLI, we believe that it is up to each local jurisdiction to set their own public policy with respect to gaming.
  - e) To recognize that non-gaming testing (such as Electrical Testing) should not be incorporated into this standard but left to appropriate test laboratories that specialize in that type of testing. Except where specifically identified in the standard, testing is not directed at health or safety matters. These matters are the responsibility of the manufacturer, purchaser, and operator of the equipment.
  - f) To construct a standard that can be easily changed or modified to allow for new technology.
  - g) To construct a standard that does not specify any particular method or algorithm. The intent is to allow a wide range of methods to be used to conform to the standards, while at the same time, to encourage new methods to be developed.

**1.3.2 No Limitation of Technology.** One should be cautioned that this document should not be read in such a way that limits the use of future technology. The document should not be interpreted that if the technology is not mentioned, then it is not allowed. Quite to the contrary, as new technology is developed, we will review this standard, make changes and incorporate new minimum standards for the new technology.

## **1.4 Other Documents That May Apply**

**1.4.1 General Statement** Please refer to our website at [www.gaminglabs.com](http://www.gaminglabs.com) for a complete list of other GLI Standards available, which may also apply.

## 1.5 Defining Client-Server Systems

**1.5.1 General Statement.** A Client-Server System (CSS) can be fragmentally defined as either a Server Based Game System (SBGS) or a Server Supported Game System (SSGS). Both of which can be defined as the combination of a Central Server, Client Terminals and all Interface Elements that function collectively for the purpose of linking the Client Terminal with the Central Server to perform a myriad of functions related to gaming, which may include, but are not limited to:

- a) Downloading of Game Logic to the Client Terminals.
- b) Central Server Random Number Generation.
- c) Thin Client Gaming Configurations.

*NOTE: The communication network may be totally contained within a single venue (LAN) or over a wide area network (WAN) whereby a server in one location supports Client Terminals in multiple sites.*

**1.5.1.1 Server Based Game System (SBGS) defined** The combination of a server and Client Terminals in which the entire or integral portion of game content resides on the server. This system works collectively in a fashion in which the Client Terminal will not be capable of functioning when disconnected from the system.

**1.5.1.2 Server Supported Game System (SSGS) Defined** The combination of a server and Client Terminal(s) which together allow the transfer of the entire control program and game content to the Client Terminal(s) for the purpose of downloading control programs and other software resources to the Client Terminal on an intermittent basis. The Client Terminals connected to the system are capable of operating independently from the system once the downloading process has been completed. This configuration encompasses cases where the system may take control of peripheral devices or associated equipment typically considered part of a conventional Client Terminal such as a bill validator or a printer. In a System Supported Game, game outcome is determined by the Client Terminals connected to the system and not by the system itself. The Client Terminal is capable of functioning if disconnected from the system.

## 1.6 Phases of Testing

**1.6.1 General Statement.** CSS submissions to the Test Laboratory will be performed in two phases:

- a) Within the laboratory setting; and
- b) On-site following the initial install of the system to ensure proper configuration of the security applications.

*NOTE: In addition to the on-site testing of the system, the Test Laboratory shall provide training on this new technology to the local regulators, recommended field auditing procedures, and assistance with the compilation of Internal Controls, if requested.*

# CHAPTER 2

## 2.0 COMMUNICATION REQUIREMENTS

### 2.1 Introduction

**2.1.1 General Statement.** This chapter refers to communications between the CSS Server(s), all Interface Elements and the Client Terminals used in the CSS environment.

**2.1.2 Communication Protocol.** Each component of a CSS must function as indicated by the communication protocol implemented. All protocols must use communication techniques that have proper error detection and/or recovery mechanisms, which are designed to prevent tampering. GLI strongly recommends encryption with secure seeds or algorithms. Any alternative measures will be reviewed on a case-by-case basis, with regulator approval.

**2.1.3 Loss of Communications.** For a Server Based Game System (SBGS), a client must be rendered unplayable if communications from the server or system portion of the Client Terminal is lost. If a game is in progress, a mechanism must be provided to recover to the point of the game when communications was lost. Alternatively, in a multi-player environment, a loss of communication can result in aborting the game and refunding player's wagers.

In the case of Client Terminals that have lost communications with the server, the CSS must provide a means, such as a hand pay, for patrons to cash out credits indicated on the Server Based Client Terminal at the time communication was lost.

### 2.2 System Security

**2.2.1 General Statement.** In the event the CSS Server is utilized in conjunction with another network, all communications, including Remote Access, must pass through at least one approved application-level firewall and must not have a facility that allows for an alternate network path. If

an alternate network path exists for redundancy purposes, it too must pass through at least one application-level firewall.

*NOTE: Each CSS as submitted to the Test Laboratory will be examined thoroughly to ensure that the proposed field configuration is secure. The Test Laboratory may provide additional security recommendations within the final certification and on-site training to the regulators, if requested*

**2.2.2 Firewall Audit Logs.** The firewall application must maintain an audit log of the following information and must disable all communications and generate an error event if the audit log becomes full:

- a) all changes to configuration of the firewall;
- b) all successful and unsuccessful connection attempts through the firewall; and
- c) the source and destination IP Addresses, Port Numbers and MAC Addresses.

*NOTE: A configurable parameter 'unsuccessful connection attempts' may be utilized to deny further connection requests should the predefined threshold be exceeded. The system administrator must also be notified.*

## 2.3 Remote Access

**2.3.1 General Statement.** Remote Access is defined as any access to the system outside of the 'Trusted' Network. Remote Access, where permitted, shall authenticate all computer systems based on the authorized settings of the CSS or firewall application that establishes a connection with the CSS. The security of Remote Access will be reviewed on a case-by-case basis, in conjunction with the current technology and approval from the local regulatory agency. The following are additional requirements:

- a) No unauthorized remote user administration functionality (adding users, changing permissions, etc.);

- b) No unauthorized access to any database other than information retrieval using existing functions; and
- c) No unauthorized access to the operating system.

*NOTE: GLI acknowledges that the system manufacturer may, as needed, remotely access the CSS and its associated components for the purpose of product and user support, if permitted.*

**2.3.2 Remote Access Auditing.** The CSS Server must maintain an activity log either automatically or have the ability to manually enter the logs depicting all Remote Access information that includes the:

- a) Log on Name;
- b) Time and date the connection was made;
- c) Duration of connection; and
- d) Activity while logged in, including the specific areas accessed and changes that were made.

## **2.4 Wide Area Network Communications**

**2.4.1 General Statement** Wide Area Network (WAN) communications within the CSS is permitted provided that:

- a) the Jurisdiction(s) within which the CSS is to operate do not specifically prohibit the linking of multiple sites;
- b) the communications over the WAN are secured from intrusion, interference and eavesdropping via techniques such as use of a Virtual Private Network (VPN), encryption, authentication etc; and
- c) only functions documented in the communications protocol are used over the WAN. The protocol shall be provided to the Testing Laboratory. The protocol documentation may be in multiple parts e.g. delivery mechanism and message formats, etc.

# CHAPTER 3

## 3.0 CSS SERVER REQUIREMENTS

### 3.1 Introduction

**3.1.1 General Statement.** This section covers the elements common to the “back of the house” operations of a CSS. The Game Server(s) may be located locally, within a single facility or may be remotely located outside of the facility such as over a Wide Area Network (WAN). In the case where a CSS Server also performs tasks as required by other systems, (i.e. On-Line Monitoring and Control System, Ticket Validation System, etc) those portions do not apply to the GLI-21 document and would have to be evaluated against the appropriate standard.

### 3.2 Multiple Servers

**3.2.1 General Statement.** A CSS may in fact be a collection of servers for load balancing, redundancy or functionality reasons. For example, there might be two or more game servers, a finance server, monitoring server, download server, etc. The system as a whole, which may be a collection of such servers, must meet the full requirements of this specification but not necessarily each server.

### 3.3 General Operation & Server Security

**3.3.1 General Statement.** For a Server Based Game System, the Game Server shall generate and transmit to the Client Terminals control, configuration and information data, depending upon the actual implementation, examples are:

- a) credit movement;
- b) random numbers;
- c) game result components, e.g. balls, cards or reel stop positions;

- d) actual game results; or
- e) updates to the credit meter for winning games.

For a System Supported Game System, the Game Server will not participate in the game determination process i.e. the primary functions will be that of downloading control programs and other software resources, or providing command and control instruction that may change the configuration of the of the software already loaded on the Client Terminal, on an intermittent basis.

**3.3.2 Security.** The Servers shall be housed in a secure computer room or secure locked cabinet outside of the Player Terminals.

**3.3.3 Intrusion Protection.** All servers shall have sufficient physical / logical intrusion protection against unauthorized access. Ideally, the system should require Manufacturer and Regulatory Authority providing joint but not separate access.

**3.3.4 Configuration Access Requirements.** The CSS interface element setup/configuration menu(s) must not be available unless using an authorized access method that is secure.

**3.3.5 Server Programming.** There shall be no means available for an Operator to conduct programming on the server in any configuration e.g. the Operator should not be able to perform SQL statements to modify the database. However, it is acceptable for Network Administrators to perform authorized network infrastructure maintenance with the sufficient access rights, that would include the use of SQL statements that were already resident on the system.

**3.3.6 Virus Protection.** It is recommended all servers and client devices should have adequate virus protection, where applicable.

**3.3.7 Copy Protection.** Copy protection to prevent unauthorized proliferation or modification of software, for servers or clients, may be implemented provided that



- a) the method of copy protection is fully documented and provided to the Test Laboratory, who will verify that the protection works as described; and
- b) any device(s) involved in enforcing the copy protection can be individually verified by the methodology described in Section 3.7.2.

### 3.4 Wireless Ethernet Communication

**3.4.1 General Statement.** Should a wireless Ethernet communication solution be utilized, it must meet the applicable portions of the GLI-26 Standard 'Wireless Gaming Systems'

### 3.5 System Failure

**3.5.1 General Statement.** The CSS shall be designed to protect the integrity of pertinent data in the event of a failure. Audit logs, system databases, and any other pertinent data must be stored using reasonable protection methods. If hard disk drives are used as storage media, data integrity must be assured in the event of a disk failure. Acceptable methods include, but are not limited to, multiple hard drives in an acceptable RAID configuration, or mirroring data over two or more hard drives. The method used must also provide open support for backups and restoration. Backup scheme implementation must occur at least once every day, although all methods will be reviewed on a case-by-case basis by the testing laboratory.

**3.5.2 Recovery Requirements.** In the event of a catastrophic failure when the CSS cannot be restarted in any other way, it shall be possible to reload the database from the last viable backup point and fully recover the contents of that backup, recommended to consist of at least the following information, where applicable:

- a) Significant events.
- b) Auditing information.
- c) Specific site information such as game configuration, security accounts, etc.

## 3.6 Self Monitoring

**3.6.1 General Statement** The CSS must implement self-monitoring of all critical Interface Elements (e.g. Central hosts, network devices, firewalls, links to third parties, etc.) and shall have the ability to effectively notify the system administrator of the condition, provided the condition is not catastrophic. The CSS shall be able to perform this operation with a frequency of at least once in every 24-hour period. The implementation of self-monitoring schemes will be reviewed on a case-by-case basis by the testing laboratory. Additionally, all critical interface elements will be reviewed on a case per case basis and may require further action by the system depending upon the severity of the failure.

## 3.7 CSS Software Verification

### 3.7.1 Controlled Server Components

- a) **General Statement.** Each component of the CSS must have a method to be verified via a third-party verification procedure. The third-party verification process shall not include any process or security software provided by the operating system or manufacturer. A secondary check may use commercially available software by the system manufacturer as part of any secondary verification.
- b) **General Statement.** The CSS must be capable of verifying that all control programs contained on the server or system portion are authentic copies of approved components both automatically at least once every 24 hours and on demand. The method of validation must provide at least 128 bits of resolution or must be a bit-for-bit comparison and must prevent the execution of any control program component if the component is determined to be invalid. If an error(s) is detected, the system must provide a visual notification of the invalid program. A program component of the verification mechanism must reside on and securely load from non-alterable media. A report shall be available which details the outcome of each automated execution of the validation mechanism and shall identify any invalid program components.

**3.7.2 Verification of devices that cannot be interrogated.** Program devices that cannot be interrogated, such as Smart cards, may be used provided they are able to be verified by the following methodology:

- a) A challenge is sent by the peer device, such as a hashing seed, to which the device must respond with a checksum of its entire program space using the challenge value.
- b) The challenge mechanism and means of loading the software into the device is verified by the Testing Laboratory and approved by the regulator.

Such devices, where examination of the source code by the test lab shows that there can be no affect on approved game or monetary outcome, shall not be subject to these requirements.

**3.7.3 Controlled Client Terminal Components.**

- a) General Statement. This section will outline the requirements of the CSS when downloading software, games and other configuration data to Client Terminals.
- b) Independent Integrity Checks. The CSS shall provide the ability to conduct an independent integrity check of all applicable controlled components residing on the system.
  - i. The third-party verification process shall not include any process or security software provided by the operating system manufacturer, unless the purpose is to be used as a secondary verification method.

**3.7.4 Verification of Control Program.** The CSS shall provide the ability to authenticate all applicable controlled components for which a copy resides on the system on demand and once every 24 hours and:

- a) The CSS shall authenticate all critical files including, but not limited to, executables, data, operating system files and other files, which may affect the game outcome or operation, and for which a copy resides on the system.

- b) The CSS shall employ a third-party industry standard secure hashing algorithm (eg. MD-5 or SHA-1). If embedded, the manufacturer should be prepared to demonstrate the algorithm of choice to both the testing laboratory and the Commission.
- c) A report shall be available that details the verification results for each controlled component verification.
- d) In the event of failed authentication the CSS shall deactivate the controlled component in a manner in which the following functions; including, but not limited to, download, install, and configuration of the controlled component to a connected Client Terminal is not possible. The CSS shall also provide a mechanism to provide notification of the authentication failure to the Commission.

### 3.8 Server Recall Requirements

**3.8.1 General Statement.** The Server that supports a Server Based Game must be able to provide the following information display

- a) a complete play history for the most recent game played and at least nine (9) games prior to the most recent game for each client station connected to the Server Based game. The display must indicate the game outcome (or a representative equivalent), intermediate play steps (such as hold and draw sequence or a double-down sequence), credits available, bets placed, credits or coins paid, and credits cashed out. The capability to initiate game recall must be available at the client, for recall information specifically associated with the particular client station initiating the game recall. The capacity to initiate game recall for any and all clients that make up the Server Based Gaming System must be available from the system or server portion of the SBGS. The requirement to display game recall applies to all game programs currently installed on the server portion of the Server Based Game.
- b) a complete transaction history for transactions with a cashless wagering system to include the most recent and the previous thirty-four transactions prior to the most recent transaction for each client station that incremented any of the cashless in-or out meters. The capability to initiate transaction history must be available at the Client Terminal for

the transaction history specifically associated with the particular Client Terminal initiating the history information request.

### **3.9 Download Data Library**

**3.9.1 General Statement.** The Download Data Library refers to the formal storage of all approved data files that may be downloaded to Client Terminals including control and game software, peripheral firmware, configuration data, etc.

**3.9.2 Update of Download Data Library.** Where applicable, the CSS Download Data Library shall only be written to, with secure access that is controlled by the regulator, in which case the manufacturer and/or operator will be able to access the Download Data Library, provided that this access does not permit adding new Download Data Files; or the Download Data Library shall only be written to using a method that is acceptable by the Test Laboratory and the Regulator.

**3.9.3 Download Data Library Audit Log.** Any changes that are made to the Download Data Library, including the addition, changing or deletion of Game Programs, must be stored in an unalterable audit log, which shall include:

- a) Time and Date of the access and/or event;
- b) Log In Name; and
- c) Download Data Files added, changed, or deleted.

**3.9.4 Download Activity Audit Log.** Any record of activity between the Server and the Client that involves the downloading of program logic, the adjustment of client settings/configurations, or the activation of previously downloaded program logic, must be stored in an unalterable audit log, which shall include:

- a) The Client Terminal(s) which the Game Program was downloaded to and, if applicable, the program it replaced; and

- b) The Client Terminal(s) which the Game Program was activated on and the program it replaced; and
- c) Changes to the Client Terminal configuration settings/configurations and what the changes were.

### 3.10 Download of Client Terminal Data Files and Control Programs

**3.10.1 General Statement.** This chapter will outline the requirements of the CSS when downloading software, games and other configuration data to Client Terminals, if the Server provides the functionality of downloading control programs and other software resources, whether for a Server Based Game System or a System Supported Game System.

**3.10.2 Control Program.** This section will detail the minimum technical standards that shall be met, where applicable, when downloading/activating control programs from the SSGS Server to the Client Terminal:

- a) The Client Terminal and/or the SSGS Server must have a method to monitor and report to the Slot Monitoring System all external door access during a foreground program download and/or activation process. If the SSGS does not have the ability to monitor the door access during the foreground program download and/or activation process, the Test Laboratory's report shall indicate as such so that Internal Controls can be developed to ensure the security of the Client Terminal's security, primarily with regard to the cash compartments, where applicable.
- b) Prior to execution of updated software, the Client Terminal must be in an Idle State for four minutes and the software successfully authenticated, as defined within the Verification of control program section of the applicable game regulations.
- c) Prior to any software being added or removed from a gaming device or client station comprising a part of a system supported game, that would result in the loss or change of mandatory accounting meter information, a complete set of meter information must be successfully communicated to a slot accounting system.

- d) It must be possible to perform a forensic analysis of the game which may include viewing the game data at the CSS Server and/or being able to place the game data back onto another client terminal for examination purposes.

### 3.11 Control of Client Terminal Configurations

**3.11.1 General Statement.** Client Terminals used in a CSS environment that have alterable configurations that require Regulatory Control, as outlined within GLI-11 Section 1.5, may be waived provided that the rules within this section are met.

**3.11.2 Paytable/Denomination Configuration Changes.** Client Terminal Control Programs that offer multiple paytables and/or denominations that can be configured via the CSS Server will not require Regulatory Control to change the payable selected, provided:

- a) All paytables that are available meet the local theoretical payback percentage and odds requirements, where applicable;
- b) The Client Terminal and/or CSS Server maintains the Amounts Bet and Amounts Won meters within Critical Memory for each of the paytables that are available;
- c) The Client Terminal maintains the Master Accounting meters in dollars and cents or the lowest denomination available for the local currency;
- d) The game is in an Idle State when the update occurs; and
- e) The change will not cause inaccurate crediting or payment (i.e., games using coin hoppers and coin acceptors with a fixed denomination.)

**3.11.3 Client Terminal Critical Memory Clear.** The process of clearing memory on the Client Terminals via the CSS must utilize a secure method that would require Regulatory Control. For systems that do not comply with this rule, the regulator must approve the method used.

*NOTE: Clearing of non-RAM critical memory, or other memory, should meet the same requirement as those outlined herein for RAM*

### 3.12 Download of Random Values

**3.12.1 General Statement** This Chapter governs elements of a CSS that may be utilized for the generation of Random Values, which are subsequently communicated to the Client Terminal's Control Program that is required for the determination of game outcomes. The CSS Server generation of Random Values does not include the generation of game outcomes.

*NOTE: Systems utilizing finite pools of game outcomes (i.e. Electronic Pull-Tab Systems) shall conform to GLL-14 Finite Scratch Ticket and Pull-Tab Systems, in addition to the standards set forth herein, where applicable*

**3.12.2 Random Number Generator** In the event the CSS has the ability to download Random Values to the Client Terminal, the Random Number Generator shall function in accordance with the 99% confidence levels, as outlined within the RNG Requirements of GLL-11 Section 3.3.



# CHAPTER 4

## 4.0 CSS CLIENT TERMINAL REQUIREMENTS

### 4.1 Introduction

**4.1.1 General Statement.** This terminal is used by the player to place wagers, play the game(s) on offer and win prizes (when applicable). The Player Terminal may receive game play information from the Game Server, in the case of System Based Game System (SBGS) or make its own determination in the case of a System Supported Game System (SSGS), and then displays the information to the player. Game play and other functionality may be separated in parts, where some components may be generated within or outside the Player Terminal (e.g., Player Terminals that function with a system). Where applicable, all client terminals must conform to all requirements for Gaming Devices established by the requested jurisdictional authority.

# Glossary

Reference	Definition
CSS Server	The "host" computer that is the primary source of the system controls and information.
Control Program	The control program is the software that operates the Client Terminal functions, including the payable(s) for the game. The Control Program can run independently of the CSS or may require information generated by the system to perform the Client Terminal functions.
Critical Memory	Critical memory is used to store all data that is considered vital to the continued operation of the Client Terminal.
Firewall	Network security barrier. A firewall is a device that guards the entrance to a private network and keeps out unauthorized or unwanted traffic.
Game Contents	The downloading of any data, with the exception of the Game Program or Random Values.
Game Data	The data stored within non-volatile memory that reflects the accounting and security events that is specific to the individual Client Terminal, which includes: <ol style="list-style-type: none"> <li>1) Error Logs.</li> <li>2) All Drop Meters.</li> <li>3) Last Game Recall (this should be maintained within the game history in the event there is a player dispute where the suggested problem took place earlier and was not reported until after the update of the new game, text depiction is an acceptable alternative).</li> <li>4) Bill Recall.</li> <li>5) Cashless Transaction Logs.</li> <li>6) Audit Logs for the Client Terminal Game Program transactions.</li> </ol>
Game Program	The control program that resides at the CSS server and/or the Client Terminal.
Download Data Library	A Regulator controlled library that resides at the CSS server that contains the complete game program and/or the server side critical components of a game program.
Idle State	The Client Terminal is in an Idle State, including while the game is disabled, when there is no activity on the device, no credits, and no Error Conditions.
Interface Elements	Every point in communication within the CSS which includes, at a minimum, the CSS Server, Client Terminal and any other equipment that is used for the purpose of transmitting data.
Client Terminal	An element within a CSS that is a Client Terminal. The Client Terminal in a Server-Supported configuration may function independently of the CSS Server upon a successful Control Program update or, requires Game Content, which is produced by the CSS Server, to function as in a Server-Based configuration.
Random Values	Where a Random Number Generator is stored on the CSS Server, and communicates random numbers to the Client Terminal(s) that are required for the Client Terminal to function, where the Client Terminal's Control Program is not independent of the CSS Server.
Regulatory Control	A method used by and is only accessible to the regulator to ensure the security of the CSS.
Server Based Game System (SBGS)	The combination of a server and Client Terminals in which the entire or integral portion of game content resides on the server. This system works collectively in a fashion in which the Client Terminal will not be capable of functioning when disconnected from the system.
Server Supported Game System (SSGS)	The combination of a server and Client Terminal(s) which together allow the transfer of the entire control program and game content to the Client Terminal(s) for the purpose of downloading control programs and other software resources to the conventional Client Terminal or Client Terminal on an intermittent basis. The Client Terminals connected to the system are capable of operating independently from the system once the downloading process has been completed. This configuration encompasses cases where the system may take control of peripheral devices or associated equipment typically considered part of a conventional Client Terminal such as a bill validator or a printer. In a System Supported Game, game outcome is determined by the Client Terminals connected to the system and not by the system itself. The Client Terminal is capable of functioning if disconnected from the system.



**STANDARD SERIES**

**GLI-24:**

**Electronic Table Game Systems**

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**Version: 1.3**

**Release Date: September 6, 2011**



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## **ABOUT THIS STANDARD**

This Standard has been produced by Gaming Laboratories International, LLC for the purpose of providing independent certifications to suppliers under this Standard and complies with the requirements set forth herein.

A supplier should submit equipment with a request that it be certified in accordance with this Standard. Upon certification, Gaming Laboratories International, LLC will provide a certificate of compliance evidencing the certification to this Standard.

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# CHAPTER 1

## 1.0 STANDARD OVERVIEW

### 1.1 Introduction

**1.1.1 General Statement.** Gaming Laboratories International, LLC (GLI) has been testing gaming equipment since 1989. Over the years, we have developed numerous standards for jurisdictions all over the world. In recent years, many jurisdictions have opted to ask for the development of industry standards without creating their own standards documents. In addition, with technology changing almost monthly, new technology is not being incorporated quickly enough into existing standards due to the long process of administrative rulemaking. This document, *GLI Standard 24*, will set forth the technical Standards for Electronic Table Game Systems (ETGS).

**1.1.2 Document History.** This document is an essay from many standards documents from around the world. Some GLI has written; some, such as the Australian and New Zealand National Standard, were written by Industry Regulators with input from test laboratories and electronic table game manufacturers. We have taken each of the standards' documents, merged each of the unique rules together, eliminating some rules and updating others, in order to reflect both the change in technology and the purpose of maintaining an objective, factual standard. We have listed below, and given credit to, agencies whose documents we reviewed prior to writing this Standard. It is the policy of **Gaming Laboratories International, LLC** to update this document as often as possible to reflect changes in technology, testing methods, or cheating methods. This document will be distributed without charge to all those who request it. It may be obtained by downloading it from our website at [www.gaminglabs.com](http://www.gaminglabs.com) or by writing to us at:

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## 1.2 Purpose of Technical Standards

1.2.1 General Statement. The Purpose of this Technical Standard is as follows:

- a) To eliminate subjective criteria in analyzing and certifying Electronic Table Game Systems operation.
- b) To only test those criteria that impact the credibility and integrity of Electronic Table Game Systems from both the Revenue Collection and Player's perspective.
- c) To create a standard that will ensure that the Electronic Table Game Systems are fair, secure, and able to be audited and operated correctly.
- d) To distinguish between local public policy and laboratory criteria. At GLI, we believe that it is up to each local jurisdiction to set public policy with respect to gaming.
- e) To recognize that non-gaming testing (such as Electrical Testing) should not be incorporated into this standard but left to appropriate test laboratories that specialize in that type of testing. Except where specifically identified in the standard, testing is not directed at health or safety matters. These matters are the responsibility of the manufacturer, purchaser, and operator of the equipment.
- f) To construct a standard that can be easily changed or modified to allow for new technology.
- g) To construct a standard that does not specify any particular method or algorithm. The intent is to allow a wide range of methods to be used to conform to the standards, while at the same time, to encourage new methods to be developed.

1.2.2 No Limitation of Technology. One should be cautioned that this document should not be read in such a way that limits the use of future technology. The document should not be interpreted that if the technology is not mentioned, then it is not allowed. Quite to the contrary, as new technology is developed, we will review this standard, make changes and incorporate new minimum standards for the new technology.



### 1.3 Other Documents That May Apply

**1.3.1 General Statement.** The following other GLI standards may apply, depending on the features of the electronic table game system and references throughout this document. All GLI standards are available on our website at [www.gaminglabs.com](http://www.gaminglabs.com):

- a) GLI-11 Gaming Devices in Casinos;
- b) GLI-12 Progressive Gaming Devices in Casinos;
- c) GLI-13 On-Line Monitoring and Control Systems (MCS) and Validation Systems in Casinos;
- d) GLI-16 Cashless Systems in Casinos;
- e) GLI-17 Bonusing Systems in Casinos; and
- f) GLI-18 Promotional Systems in Casinos.

*NOTE: This standard covers the Technical Specifications of the operation of Electronic Table Game Systems, as defined within section 1.4.1 below, where the table games are operated electronically without a live dealer. Please refer to GLI-25 for Electronic Table Game Systems that utilize a live dealer.*

### 1.4 Defining Electronic Table Game Systems

**1.4.1 General Statement.** An Electronic Table Game System (ETGS) is the combination of a Central Server, Player Interface and all Interface Elements that function collectively for the purpose of electronically simulating table game operations. **This standard is to be used when there is no live dealer and the game plays without significant human interaction** including the initiation of game play, responsible for all monetary transactions including credit acceptance, collecting wagers, distributing winnings, and ensuring all wagers are registered properly. **This standard will not make assumptions as to the classification of a device in a particular jurisdiction as being a table game or a gaming device, as defined within the GLI-11 Gaming Devices in Casinos standard. Nor does GLI offer an opinion as to how many 'devices' the equipment encompasses.**

*NOTE: For table game systems that utilize a live dealer please refer to the GLI Standard 25.*

## 1.5 Phases of Testing

*1.5.1 General Statement.* Electronic Table Game submissions to the Test Laboratory will be performed in two phases:

- a) Within the laboratory setting; and
- b) On-site following the initial install of the system to ensure proper configuration of the security applications.

*NOTE: In addition to the on-site testing of the system, the Test Laboratory shall provide training on this new technology to the local regulators, recommended field auditing procedures, and assistance with the compilation of Internal Controls, if requested.*

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# CHAPTER 2

## 2.0 ELECTRONIC TABLE GAME SYSTEM REQUIREMENTS

### 2.1 Introduction

**2.1.1 General Statement.** This chapter would apply to the overall system operations to ensure the security, accountability and integrity of the equipment.

### 2.2 Table Game System Requirements

**2.2.1 System Clock.** The system must maintain an internal clock that reflects the current time (24hr format - which is understood by the local date/time format) and date that shall be used to provide for the following:

- a) Time stamping of significant events;
- b) Reference clock for reporting; and
- c) Time stamping of configuration changes.

**2.2.2 Synchronization Feature.** If multiple clocks are supported, the system shall have a facility whereby it is able to synchronize those clocks in each system component, whereby conflicting information could not occur.

## 2.3 System Security

**2.3.1 General Statement** All communications, including Remote Access, must pass through at least one approved application-level firewall and must not have a facility that allows for an alternate network path.

**2.3.2 Firewall Audit Logs** The firewall application must maintain an audit log of the following information and must disable all communications and generate an error event if the audit log becomes full:

- a) All changes to configuration of the firewall;
- b) All successful and unsuccessful connection attempts through the firewall; and
- c) The source and destination IP Addresses, Port Numbers and MAC Addresses.

**2.3.3 Surveillance/Security Functionality** The system shall provide for interrogation that enables on-line comprehensive searching of the significant event log.

**2.3.4 Access Control** The system must support either a hierarchical role structure whereby user name and password define program access or individual menu item access or logon program/device security based strictly on user name and password or PIN. The system shall not permit the alteration of any significant log information without supervised access control. There shall be a provision for system administrator notification and user lockout or audit trail entry after a set number of unsuccessful login attempts. The system shall record: Date and Time of the Login attempt, username supplied, and success or failure. The use of generic user accounts on servers is not permitted.

**2.3.5 Data Alteration** The system shall not permit the alteration of any accounting or significant event log information without supervised access controls. In the event financial data is changed, an audit log must be capable of being produced to document:

- a) Data element altered;
- b) Data element value prior to alteration;
- c) Data element value after alteration;
- d) Time and Date of alteration; and
- e) Personnel that performed alteration (user login).

## 2.4 Remote Access

**2.4.1 Remote Access defined.** Remote Access defines any access made by a component outside the "trusted" network.

**2.4.2 General Statement.** Remote access where permitted, shall authenticate all computer systems based on the authorized settings of the electronic table game and firewall application that establishes a connection with the electronic table game as long as the following requirements are met:

- a) Remote Access User Activity log is maintained by both the property and the manufacturer, depicting: authorized by, purpose, logon name, time/date, duration, and activity while logged in;
- b) No unauthorized remote user administration functionality (adding users, changing permissions, etc.);
- c) No unauthorized access to database;
- d) No unauthorized access to operating system; and
- e) If remote access is to be on a continuous basis then a network filter (firewall) must be installed to protect access (Dependent upon jurisdictional approval).

**2.4.3 Self Monitoring.** The system must implement self monitoring of all critical Interface Elements (e.g. Central hosts, network devices, firewalls, links to third parties, etc.) and shall have the ability to effectively notify the system administrator of any error condition, provided the

condition is not catastrophic. The system shall be able to perform this operation with a frequency of at least once in every 24-hour period and during each power-up and power reset.

## 2.5 Backups and Recovery

**2.5.1 System Redundancy, Backup & Recovery.** The system shall have sufficient redundancy and modularity so that if any single component or part of a component fails, gaming can continue. There shall be redundant copies of each log file or system database or both on the system with open support for backups and restoration.

**2.5.2 Backup & Recovery.** In the event of a catastrophic failure when the system cannot be restarted in any other way, it shall be possible to reload the system from the last viable backup point and fully recover the contents of that backup, recommended to consist of at least the following information:

- a) Significant events;
- b) Accounting information;
- c) Auditing information; and
- d) Specific site information such as Device file, employee file, game profiles, etc

## 2.6 Communication Protocol

**2.6.1 General Statement.** Each component of an electronic table game system must function as indicated by the communication protocol implemented. All protocols must use communication techniques that have proper error detection and/or recovery mechanisms which are designed to prevent unauthorized access or tampering, employing Data Encryption Standards (DES) or equivalent encryption with secure seeds or algorithms. Any alternative measures will be reviewed on a case-by-case basis, with regulator approval.

## 2.7 System Integrity

**2.7.1 General Statement.** The Laboratory will perform certain tests to determine whether or not outside influences affect game fairness to the player or create cheating opportunities. This certification applies exclusively to tests conducted using current and retrospective methodology developed by Gaming Laboratories International, LLC (GLI). During the course of testing, GLI inspects for marks or symbols indicating that a device has undergone product safety compliance testing. Gaming Laboratories International, LLC also performs, where possible, a cursory review of submissions and information contained therein related to Electromagnetic Interference (EMI), Radio Frequency Interference (RFI), Magnetic Interference, Liquid Spills, Power Fluctuations and Environmental conditions. Electrostatic Discharge Testing is intended only to simulate techniques observed in the field being used to attempt to disrupt the integrity of electronic table game systems. Compliance to any such regulations related to the aforementioned testing is the sole responsibility of the device manufacturer. GLI claims no liability and makes no representations with respect to such non-gaming testing. An electronic table game system shall be able to withstand the following tests, resuming game play without operator intervention:

- a) **Random Number Generator** If implemented, the random number generator and random selection process shall be impervious to influences from outside the device, including, but not limited to, electro-magnetic interference, electro-static interference, and radio frequency interference;
- b) **Electro-Static Interference.** Protection against static discharges requires that the table game's conductive cabinets be earthed in such a way that static discharge energy shall not permanently damage or permanently inhibit the normal operation of the electronics or other components within the electronic table game. The electronic table game may exhibit temporary disruption when subjected to a significant electro-static discharge greater than human body discharge, but they shall exhibit a capacity to recover and complete any interrupted play without loss or corruption of any control or critical data information associated with the electronic table game. The tests will be conducted with a severity level of a maximum of 27KV air discharge;

2.7.2 **Physical Security.** The server or system component(s) must reside in a secure area where access is limited to authorized personnel. It is recommended that logical access to the game be logged on the system or on a computer or other logging device that resides outside the secure area and is not accessible to the individual(s) accessing the secure area. The logged data should include the time, date, and the identity of the individual accessing the secure area. The resulting logs should be kept for a minimum of 90 days.

## 2.8 Random Number Generator

2.8.1 **General Statement.** The Random Number Generator (RNG) is the selection of game symbols or production of game outcomes. The regulations within this section are only applicable to electronic table games that utilize an RNG, which shall:

- a) Be statistically independent;
- b) Conform to the desired random distribution;
- c) Pass various recognized statistical tests; and
- d) Be unpredictable.

### 2.8.2 **Game Selection Process.**

- a) **All Combinations and Outcomes Shall Be Available.** Each possible permutation or combination of game elements that produces winning or losing game outcomes shall be available for random selection at the initiation of each play, unless otherwise denoted by the game.
- b) **No Near Miss.** After selection of the game outcome, the electronic table game shall not make a variable secondary decision, which affects the result shown to the player. For instance, the random number generator chooses an outcome that the game will be a loser.
- c) **No Corruption from Associated Equipment.** An electronic table game shall use appropriate protocols that effectively protect the random number generator and random



selection process from influence by associated equipment, which may be communicating with the electronic table game

**2.8.3 Applied Tests.** The test laboratory may employ the use of various recognized tests to determine whether or not the random values produced by the random number generator pass the desired confidence level of 99%. These tests may include, but are not limited to:

- a) Chi-square test;
- b) Equi-distribution (frequency) test;
- c) Gap test;
- d) Overlaps test;
- e) Poker test;
- f) Coupon collector's test;
- g) Permutation test;
- h) Kolmogorov-Smirnov test;
- i) Adjacency criterion tests;
- j) Order statistic test;
- k) Runs tests (patterns of occurrences should not be recurrent);
- l) Interplay correlation test;
- m) Serial correlation test potency and degree of serial correlation (outcomes should be independent of the previous game);
- n) Tests on subsequences; and
- o) Poisson distribution.

**2.8.4 Background RNG Activity.** The RNG shall be cycled continuously in the background between games and during game play at a speed that cannot be timed by the player. The test laboratory recognizes that some time during the game, the RNG may not be cycled when interrupts may be suspended. The test laboratory recognizes this but shall find that this exception shall be kept to a minimum.

**2.8.5 RNG Seeding.** The first seed shall be randomly determined by an uncontrolled event. After every game there shall be a random change in the RNG process (new seed, random timer, delay, etc.). This will verify the RNG doesn't start at the same value every time. It is permissible not to use a random seed; however, the manufacturer must ensure that games will not synchronize.

**2.8.6 Live Game Correlation.** Unless otherwise denoted on the pay glass/display, where the electronic table game plays a game that is recognizable such as Poker, Blackjack, Roulette, etc., the same probabilities associated with the live game shall be evident in the simulated game. For example, the odds of getting any particular number in Roulette where there is a single zero (0) and a double zero (00) on the wheel, shall be 1 in 38; the odds of drawing a specific card or cards in Poker shall be the same as in the live game.

**2.8.7 Card Games.** The requirements for games depicting cards being drawn from a deck are the following:

- a) At the start of each game/hand, the cards shall be drawn fairly from a randomly-shuffled deck; the replacement cards shall not be drawn until needed, and in accordance with game rules, to allow for multi-deck and depleting decks;
- b) Cards once removed from the deck shall not be returned to the deck except as provided by the rules of the game depicted;
- c) As cards are removed from the deck they shall be immediately used as directed by the Rules of the Game (i.e., the cards are not to be discarded due to adaptive behavior by the electronic table game system)

*NOTE: It is acceptable to draw random numbers for replacement cards at the time of the first hand random number draw. Provided the replacement cards are sequentially used as needed*

## 2.9 Maintenance of Critical Memory

**2.9.1 General Statement.** Critical memory storage may be maintained by the player terminal or the system, where applicable. Critical memory shall be maintained by a methodology that enables errors to be identified. This methodology may involve signatures, checksums, partial checksums, multiple copies, timestamps and/or effective use of validity codes.

*NOTE: The "Maintenance of Critical Memory" section is not intended to preclude the use of alternate storage media types, such as hard disk drives, for the retention of critical data. Such alternate storage media is still expected to maintain critical data integrity in a manner consistent with the requirements in this section, as applicable to the specific storage technology implemented.*

**2.9.2 Comprehensive Checks.** Comprehensive checks of critical memory shall be made following game initiation but prior to display of game outcome to the player. It is recommended that critical memory is continuously monitored for corruption. Test methodology shall detect failures with an extremely high level of accuracy.

**2.9.3 Unrecoverable Critical Memory.** An unrecoverable corruption of critical memory shall result in an error. The memory error shall not be cleared automatically and shall result in a tilt condition, which facilitates the identification of the error and causes the electronic table game to cease further function. *The critical memory error shall also cause any communication external to the electronic table game to immediately cease.* An unrecoverable critical memory error shall require a full non-volatile memory clear performed by an authorized person.

**2.9.4 Non-volatile Memory and Program Storage Device Space.** Non-volatile memory space that is not critical to the electronic table game operations are not required to be validated.

## 2.10 Program Storage Device Requirements

**2.10.1 General Statement.** The term *Program Storage Device* is defined to be the media or an electronic device that contains the critical control program components. Device types include but are not limited to EPROMs, compact flash cards, optical disks, hard drives, solid state drives, USB drives, etc. This partial list may change as storage technology evolves. All program storage devices shall:

- a) Be housed within a fully enclosed and locked logic compartment;
- b) Be clearly marked with sufficient information to identify the software and revision level of the information stored in the device. In the case of media types on which multiple programs may reside it is acceptable to display this information via the attendant menu;
- c) Validate themselves during each processor reset; and
- d) Validate themselves the first time they are used; and
- e) CD-ROM, DVD, and other optical disk-based Program Storage shall:
  - i. Not be a re-writeable disk; and
  - ii. The "Session" shall be closed to prevent any further writing.

## 2.11 Control Program Requirements

### 2.11.1 Control Program Verification.

- a) EPROM-based Program Storage:
  - i. Electronic table games which have control programs residing in one or more EPROMs must employ a mechanism to verify control programs and data. The mechanism must use at a minimum a checksum; however, it is recommended that a Cyclic Redundancy Check (CRC) be used (at least 16-bit).
- b) Non-EPROM Program Storage shall meet the following rules:
  - i. The software shall provide a mechanism for the detection of unauthorized and corrupt software elements, upon any access, and subsequently prevent the

execution or usage of those elements by the electronic table game. The mechanism must employ a hashing algorithm which produces a message digest output of at least 128 bits.

- ii. In the event of a failed authentication, after the game has been powered up, the electronic table game should immediately enter an error condition and display an appropriate error. This error shall require operator intervention to clear and shall not clear until; the data authenticates properly, following the operator intervention, or the media is replaced or corrected, and the electronic table game's memory is cleared.

*NOTE: Control Program Verification Mechanisms may be evaluated on a case-by-case basis and approved by the regulator and the independent testing laboratory based on industry standard security practices.*

- c) Alterable Media shall meet the following rules in addition to the requirements outlined in 2.11.1(b):
  - i. Employ a mechanism which tests unused or unallocated areas of the alterable media for unintended programs or data and tests the structure of the media for integrity. The mechanism must prevent further play of the electronic table game if unexpected data or structural inconsistencies are found.
  - ii. Employ a mechanism for keeping a record anytime a control program component is added, removed, or altered on any alterable media. The record shall contain a minimum of the last ten (10) modifications to the media and each record must contain that date and time of the action, identification of the component affected, the reason for the modification and any pertinent validation information.

*NOTE: Alterable Program Storage does not include memory devices typically considered to be alterable which have been rendered "read-only" by either a hardware or software means.*

**2.11.2 Program Identification.** Program storage devices, which do not have the ability to be modified while installed in the electronic table game during normal operation, shall be clearly

marked with sufficient information to identify the software and revision level of the information stored in the devices.

**2.11.3 Independent Control Program Verification.** The system server(s) and each component of the electronic table game that would have an effect on the integrity of the electronic table game shall have the ability to allow for an independent integrity check of the device's software from an outside source and is required for all control programs that may affect the integrity of the game. This must be accomplished by being authenticated by a third-party device, which may be embedded within the game software (see NOTE below), by having an interface port for a third-party device to authenticate the media, or by allowing for removal of the media such that it can be verified externally. This integrity check will provide a means for field verification of the software to identify and validate the program. The test laboratory, prior to device approval, shall evaluate the integrity check method.

*NOTE: If the authentication program is contained within the game software, the manufacturer must receive written approval from the test laboratory prior to submission.*

## 2.12 Player Interface Terminal Requirements

**2.12.1 General Statement.** Player interface terminals may either be a display mechanism where the system performs all operations of the game (Thin Client), or contain its own logic function in conjunction with the electronic table game system (Thick Client). In either case, the player interface terminal(s) must meet the hardware and software requirements outlined within each jurisdiction's applicable requirements for gaming devices, to ensure security and player safety. In the absence of these jurisdictional specific requirements, the GLI-11 requirements should be used.

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## 2.13 Rules of Play

### 2.13.1 Display

- a) A placard or video display used to convey game play information shall be clearly identified and shall accurately state the house rules of the game, game profile and rake (collection) schedule, and the award that will be paid to the player when the player obtains a specific win.
- b) The placard or video display shall clearly indicate whether awards are designated in denominational units, currency, or some other unit.
- c) The table game shall reflect any change in award value, which may occur in the course of play. This may be accomplished with a digital display in a conspicuous location to the table game, and the table game must clearly indicate such.
- d) All payable information should be available to the player, prior to them committing to a bet. This includes unique game features, extended play, free spins, double-up, take-a-risk, auto play, countdown timers, symbol transformations, and community style bonus awards.
- e) Placard or video displays shall not be certified if the information is inaccurate.
- f) Any table game which utilizes multiple decks of cards should alert the player to the number of card decks in play.

### 2.13.2 Multi-Wager Games

- a) Each individual wager to be played shall be clearly indicated on the player interface so that the player is in no doubt as to which wagers have been made; and
- b) The winning outcome(s) shall be clearly discernable to the player. (e.g., on an Electronic terminal it may be accomplished by highlighting the symbol(s) or wagers and/or the flashing of winning symbol(s) or wagers. Where there are wins on multiple wagers, each winning wager may be indicated in turn.)

## 2.14 Software Requirements for Percentage Payout

**2.14.1 General Statement.** Each Electronic Table Game System shall theoretically payout a minimum of seventy-five percent (75%) during the expected lifetime of the game (i.e., progressives, bonus systems, merchandise, etc. shall not be included in the percentage payout if they are external to the game).

*NOTE: The laboratory will provide the minimum and maximum theoretical payout percentage for the game within the certification report, unless otherwise noted. Additional external awards added to a game will require a re-evaluation of the theoretical payout percentage, considering the value of the award and possibly other factors. The laboratory will re-evaluate a game's theoretical payout percentage when requested.*

- a) Optimum Play Used for Skill Games. Electronic Table Game Systems that may be affected by player skill shall be calculated using a method of play that will provide the greatest return to the player over a period of continuous play.
- b) Minimum Percentage Requirement Met at All Times. The minimum percentage requirement shall be met at all times. The minimum percentage requirement shall be met when playing at the lowest end of a non-linear paytable (i.e., if a game is continuously played at a minimum bet level for its total game cycle and the theoretical RTP is lower than the minimum percentage, then the game is unacceptable). This example also extends to games such as Keno, whereby the continuous playing of any spot combination results in a theoretical return to player lower than the minimum percentage.
- c) Double-up or Gamble. The Double-up or Gamble options shall have a theoretical return to the player of one hundred percent (100%).
- d) Additional or Optional Wagers. If these wagers can only be made by participating in the base game, the minimum and maximum payback percentage will be included with calculations of the base game.



*\*\*Please be advised, the above rules regarding payback percentage are not applicable for non-house banked Electronic Table Game Systems\*\**

## 2.15 Player Interface Error Conditions

**2.15.1 General Statement** The Player Interface, where applicable, shall be capable of detecting and displaying the following error conditions and illuminating a light system for each, or sound an audible alarm. Error conditions should cause the electronic table game to lock up and require attendant intervention except as noted within this section. Error conditions shall be cleared either by an attendant or upon initiation of a new play sequence after the error has cleared except for those denoted by an "\*" which will require further evaluation since deemed as a critical error. Error conditions shall be communicated to an on-line monitoring and control system, where applicable:

### **2.15.2 Door Open Error Conditions.**

- a) All external doors on the electronic table game;
- b) Drop box door;
- c) Stacker door; and
- d) Any other currency storage areas that have a door.

### **2.15.3 Other Error Conditions.**

- a) NV memory error (for any critical memory)\*;
- b) Low NV memory battery for batteries external to the NV memory itself or low power source;
- c) Program error or authentication mismatch\*;

**2.15.4 Error Codes.** For games that use error codes, a description of electronic table game error codes and their meanings shall be affixed inside the device. This does not apply to video-based games; however, video based games shall display meaningful text as to the error conditions.

## **2.16 Door Open/Close**

**2.16.1 Required Door Metering.** The system or components of the system shall be able to detect and meter access to the following secure areas provided power is supplied to the device:

- a) All external doors on the electronic table game;
- b) Drop box door;
- c) Stacker door, and
- d) Any other currency storage areas that have a door.

## **2.17 Taxation Reporting Limits**

**2.17.1 General Statement.** The game shall be capable of entering a lock up condition if any awards from a single game cycle are in excess of a limit that is required by a taxing jurisdiction. Notwithstanding the foregoing, it is permissible to provide a mechanism to accrue W2G eligible winnings to a separate meter. This meter must not provide for the ability to place wagers and when collected by the player must lockup as required by a taxing jurisdiction.

## **2.18 Play History**

**2.18.1 Number Of Last Games Required.** For the purpose of settling disputes between players or players versus the house, the electronic table game system shall maintain the historical data for the play history. Information on at least the last ten (10) games/hands played is to be always retrievable on the operation of a suitable external key-switch, or another secure method that is not available to the player.

**2.18.2 Last Play Information Required.** Last play information shall provide all information required to fully reconstruct the last ten (10) games/hands played. All values shall be displayed, including the initial credits or ending credits, credits bet, credits won, and credits paid whether the outcome resulted in a win or loss. This information can be represented in graphical or text format. If a progressive was awarded, it is sufficient to indicate the progressive was awarded and not display the value. This information should include the final game outcome, including all player choices and bonus features. In addition, include the results of double-up or gamble (if applicable). For games that do not re-shuffle the cards at the beginning of each game, there must be secure procedures to permit a forced 're-shuffle' following access to the play history. These procedures are to be included in the system submission to the Test Laboratory.

*NOTE. For "Last Play Information" stated above, it is allowable to display values in currency in place of 'credits'.*

**2.18.3 Bonus Rounds.** The last play information shall reflect bonus rounds in their entirety. If a bonus round lasts 'x number of events,' each with separate outcomes, each of the 'x events' shall be displayed with its corresponding outcome, regardless if the result is a win or loss. Electronic table games offering games with a variable number of free games, per base game, may satisfy this requirement by providing the capability to display the last 50 free games in addition to each base game.

## **2.19 Significant Logs and Events**

**2.19.1 General Statement.** Significant events are generated at the electronic table game and sent directly to the backend utilizing an approved Communication Protocol, as described in the earlier part of this document. All Significant Events that take place at each table will be monitored and recorded in an Event History. The Event History may be divided into sections (e.g. accounting, security, finance, errors, etc.); these events will be logged by date, time and event, and should be filterable. Each event must be stored in a database(s) which includes the following:

- a) Date and time which the event occurred;
- b) Identity of the electronic table game system component that generated the event;
- c) A unique number/code that defines the event; or
- d) A brief text that describes the event in the local language.

2.19.2 Significant Events Defined. The following events must be conveyed to the backend where a mechanism must exist for timely notification:

- a) Power resets of any device;
- b) Loss of communication with any device;
- c) Error Conditions on any critical interface element;
- d) Critical memory/control program corruption of any critical component;
- e) Cashless account transactions;
- f) Jackpots (W2G Reportable Events or Large Win Events)
- g) Game start
- h) Game stop
- i) Software signature check and result (if supported)
- j) Connection by authorized devices
- k) Attempted connection by unauthorized devices

## 2.20 Accounting Information

2.20.1 General Statement. There shall be a method to accurately maintain the accounting information that is needed for proper revenue reporting and auditing. For electronic table game systems that do not maintain this information electronically, operational procedures are to be included with the system submission. Electronic table game systems that do maintain electronic accounting information shall effectively collect and store the information in a secure manner.

**2.20.2 Clearing Meters.** The clearing of stored Accounting Information may only be performed by authorized personnel via secure system controls or approved internal controls.

**2.20.3 Backup Requirements.** Data recorded by electronic meters shall be preserved after a power loss to an interface component and shall be maintained for a period of at least thirty (30) days.

## 2.21 Reports

**2.21.1 General Statement.** For electronic table game systems that maintain Significant Event and Accounting Information reports shall subsequently be available on demand. The reports must be generated accurately and provide effective information for the purpose of security and accounting auditing. For electronic table game systems that have the ability to communicate the Significant Event and Accounting Information to a separate Monitoring Control System it must be via a secure communication protocol.

**2.21.2 Cashless Transactions.** The following reports are required for electronic table game systems that provide for cashless transactions unless properly communicated to a separate Monitoring Control System

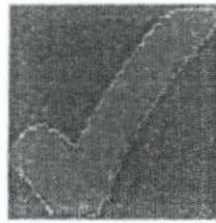
- a) **Patron Account Summary and Detail Reports.** These reports shall include beginning and ending account balance, transaction information depicting machine number, amount, date/time and are to be immediately available to a patron upon request.
- b) **Liability Report.** This report is to include previous day's starting value of outstanding Cashless Liability, aggregate Cashless-In and out totals (including rake, jackpot and amount in play), and ending Cashless liability, if applicable.
- c) **Cashless Meter Reconciliation Summary and Detail Reports.** These reports will reconcile each participating device's cashless Meter(s) against the Electronic Table Game System's cashless activity. (including Cashless in and Cashless out)

- d) Cashier Summary and Detail Reports. To include patron account, Deposits and cash-out amount of transaction, date and time of transaction, and cashier starting and ending balances, session start and end date/time (etc.) by cashier.
- e) Device Transaction Summary and Detail Reports. Wagering, issuance, voids by device, date/time, account number, and transaction number.
- f) Cashless Wagering System Activity Report. Deposits, transfers to and from electronic table game system, withdrawals, adjustments and balances, by wagering account.
- g) Electronic Table Game System Performance Report. Hands per hour, total hands played, number of hours of operation, dollars played, dollars contributed and average number of players.
- h) Cashless Wagering Account Adjustment Report. For each individual adjustment made to a cashless wagering account or a promotional account, a summary of the adjustment to include:
  - i. Patron name and account number, or specific promotion, as applicable;
  - ii. Amount of, and explanation for, the adjustment; and
  - iii. Identification of the user completing and/or authorizing the adjustment.

## 2.22 Electronic Table Game Identification

**2.22.1 General Statement.** A electronic table game shall have an identification badge affixed to the exterior of the table by the manufacturer, that is not removable without leaving evidence of tampering and this badge shall include the following information:

- a) The manufacturer;
- b) A unique serial number;
- c) The electronic table game model number; and
- d) The date of manufacture.



**Gaming  
Labs  
Certified**

**STANDARD SERIES**

**GLI-25:**

**Dealer Controlled Electronic Table Games**

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**Version: 1.2**

**Release Date: September 6, 2011**



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COMMONWEALTH REGISTER

VOLUME 36

NUMBER 08 AUGUST 28, 2014 PAGE 035348

COMMONWEALTH REGISTER

VOLUME 36

NUMBER 10 OCTOBER 28, 2014 PAGE 035799

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## **ABOUT THIS STANDARD**

This Standard has been produced by **Gaming Laboratories International, LLC** for the purpose of providing independent certifications to suppliers under this Standard and complies with the requirements set forth herein.

A supplier should submit equipment with a request that it be certified in accordance with this Standard. Upon certification, **Gaming Laboratories International, LLC** will provide a certificate of compliance evidencing the certification to this Standard.

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# CHAPTER 1

## 1.0 STANDARD OVERVIEW

### 1.1 Introduction

**1.1.1 General Statement.** Gaming Laboratories International, LLC (GLI) has been testing gaming equipment since 1989. Over the years, we have developed numerous standards for jurisdictions all over the world. In recent years, many jurisdictions have opted to ask for the development of industry standards without creating their own standards documents. In addition, with technology changing almost monthly, new technology is not being incorporated quickly enough into existing standards due to the long process of administrative rulemaking. This document, *GLI Standard 25*, will set forth the technical Standards for Dealer Controlled Electronic Table Games (ETG).

**1.1.2 Document History.** This document is an essay from many standards documents from around the world. Some GLI has written; some, such as the Australian and New Zealand National Standard, were written by Industry Regulators with input from test laboratories and electronic table game manufacturers. We have taken each of the standards' documents, merged each of the unique rules together, eliminating some rules and updating others, in order to reflect both the change in technology and the purpose of maintaining an objective, factual standard. We have listed below, and given credit to, agencies whose documents we reviewed prior to writing this Standard. It is the policy of **Gaming Laboratories International, LLC** to update this document as often as possible to reflect changes in technology, testing methods, or cheating methods. This document will be distributed without charge to all those who request it. It may be obtained by downloading it from our website at [www.gaminglabs.com](http://www.gaminglabs.com) or by writing to us at:

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## 1.2 Purpose of Technical Standards

1.2.1 General Statement The Purpose of this Technical Standard is as follows:

- a) To eliminate subjective criteria in analyzing and certifying Dealer Controlled Electronic Table Games.
- b) To only test those criteria that impact the credibility and integrity of Dealer Controlled Electronic Table Games from both the Revenue Collection and Player's perspective.
- c) To create a standard that will ensure that the Dealer Controlled Electronic Table Games are fair, secure, and able to be audited and operated correctly.
- d) To distinguish between local public policy and laboratory criteria. At GLI, we believe that it is up to each local jurisdiction to set public policy with respect to gaming.
- e) To recognize that non-gaming testing (such as Electrical Testing) should not be incorporated into this standard but left to appropriate test laboratories that specialize in that type of testing. Except where specifically identified in the standard, testing is not directed at health or safety matters. These matters are the responsibility of the manufacturer, purchaser, and operator of the equipment.
- f) To construct a standard that can be easily changed or modified to allow for new technology.
- g) To construct a standard that does not specify any particular method or algorithm. The intent is to allow a wide range of methods to be used to conform to the standards, while at the same time, to encourage new methods to be developed.

1.2.2 No Limitation of Technology One should be cautioned that this document should not be read in such a way that limits the use of future technology. The document should not be interpreted that if the technology is not mentioned, then it is not allowed. Quite to the contrary, as new technology is developed, we will review this standard, make changes and incorporate new minimum standards for the new technology.

### 1.3 Other Documents That May Apply

**1.3.1 General Statement.** The following other GLI standards may apply, depending on the features of the electronic table game and references throughout this document. All GLI standards are available on our website at [www.gaminglabs.com](http://www.gaminglabs.com):

- a) GLI-11 Gaming Devices in Casinos;
- b) GLI-12 Progressive Gaming Devices in Casinos;
- c) GLI-13 On-Line Monitoring and Control Systems (MCS) and Validation Systems in Casinos;
- d) GLI-16 Cashless Systems in Casinos;
- e) GLI-17 Bonusing Systems in Casinos; and
- f) GLI-18 Promotional Systems in Casinos.

*NOTE: This standard covers the Technical Specifications of the operation of Dealer Controlled Electronic Table Games, as defined within section 1.4.1 below, where the table games are operated electronically, that require interaction from a live dealer. Please refer to GLI-24 for Electronic Table Game Systems that do not utilize a live dealer.*

### 1.4 Defining Dealer Controlled Electronic Table Games

**1.4.1 General Statement.** Dealer Controlled Electronic Table Games (ETG) is the operation of a table game(s) that require a live dealer that utilizes electronics as part of the game's operation (i.e., game generation, electronically collecting, storing, communicating accounting and significant event data, etc.) **This standard is only to be used when the electronic table game requires a live dealer. This standard will not make assumptions as to the classification of a device in a particular jurisdiction as being a table game or a gaming device, as defined within the GLI-11 Gaming Devices in Casinos standard. Nor does GLI offer an opinion as to how many 'devices' the equipment encompasses.**

*NOTE: For table game systems that do not utilize a live dealer please refer to the GLI Standard 24.*

---

## 1.5 Phases of Testing

**1.5.1 General Statement.** Electronic table game submissions to the Test Laboratory may be performed in two phases:

- a) Within the laboratory setting; and
- b) On-site following the initial install of the system to ensure proper configuration of the security applications.

*NOTE: In addition to the on-site testing of the system, the Test Laboratory shall provide training on this new technology to the local regulators, recommended field auditing procedures, and assistance with the compilation of Internal Controls, if requested.*

# CHAPTER 2

## 2.0 ELECTRONIC TABLE GAME SYSTEM REQUIREMENTS

### 2.1 Introduction

This chapter addresses electronic table game's that may or may not function as a component within a table game system. The regulations of each subchapter only apply when the electronic table game(s) operate as part of a "table game system" that is independent of any external gaming system. Electronic table game's that operate in conjunction with external systems shall meet the game level and communication requirements established within the appropriate GLI Standard.

### 2.2 Table Game System Requirements

**2.2.1 System Clock.** The system must maintain an internal clock that reflects the current time (24hr format - which is understood by the local datetime format) and date that shall be used to provide for the following:

- a) Time stamping of significant events;
- b) Reference clock for reporting; and
- c) Time stamping of configuration changes.

**2.2.2 Synchronization Feature.** If multiple clocks are supported the system shall have a facility whereby it is able to synchronize those clocks in each system component, whereby conflicting information could not occur.

## 2.3 System Security

**2.3.1 General Statement.** All communications, including Remote Access, must pass through at least one approved application-level firewall and must not have a facility that allows for an alternate network path.

**2.3.2 Firewall Audit Logs.** The firewall application must maintain an audit log of the following information and must disable all communications and generate an error event if the audit log becomes full:

- a) All changes to configuration of the firewall;
- b) All successful and unsuccessful connection attempts through the firewall; and
- c) The source and destination IP Addresses, Port Numbers and MAC Addresses.

**2.3.3 Surveillance/Security Functionality.** The system shall provide for interrogation that enables on-line comprehensive searching of the significant event log.

**2.3.4 Access Control.** The system must support either a hierarchical role structure whereby user name and password define program access or individual menu item access or logon program /device security based strictly on user name and password or PIN. The system shall not permit the alteration of any significant log information without supervised access control. There shall be a provision for system administrator notification and user lockout or audit trail entry, after a set number of unsuccessful login attempts. The system shall record: Date and Time of the Login attempt, username supplied, and success or failure. The use of generic user accounts on servers is not permitted.

**2.3.5 Data Alteration.** The system shall not permit the alteration of any accounting or significant event log information without supervised access controls. In the event financial data is changed, an audit log must be capable of being produced to document:

- a) Data element altered;



- b) Data element value prior to alteration;
- c) Data element value after alteration;
- d) Time and Date of alteration; and
- e) Personnel that performed alteration (user login).

## 2.4 Remote Access

**2.4.1 Remote Access defined.** Remote access defines any access made by a component outside the "trusted" network.

**2.4.2 General Statement.** Remote access where permitted, shall authenticate all computer systems based on the authorized settings of the electronic table game and firewall application that establishes a connection with the electronic table game as long as the following requirements are met:

- a) Remote Access User Activity log is maintained by both the property and the manufacturer, depicting: authorized by, purpose, logon name, time/date, duration, and activity while logged in;
- b) No unauthorized remote user administration functionality (adding users, changing permissions, etc.);
- c) No unauthorized access to database;
- d) No unauthorized access to operating system; and
- e) If remote access is to be on a continuous basis then a network filter (firewall) must be installed to protect access (Dependent upon jurisdictional approval).

**2.4.3 Self Monitoring.** The system must implement self monitoring of all critical Interface Elements (e.g. central hosts, network devices, firewalls, links to third parties, etc.) and shall have the ability to effectively notify the system administrator of any error condition, provided the condition is not catastrophic. The system shall be able to perform this operation with a frequency of at least once in every 24-hour period and during each power-up and power reset.

## 2.5 Backups and Recovery

**2.5.1 System Redundancy, Backup & Recovery.** The system shall have sufficient redundancy and modularity so that if any single component or part of a component fails, gaming can continue. There shall be redundant copies of each log file or system database or both on the system with open support for backups and restoration.

**2.5.2 Backup & Recovery.** In the event of a catastrophic failure when the system cannot be restarted in any other way, it shall be possible to reload the system from the last viable backup point and fully recover the contents of that backup, recommended to consist of at least the following information:

- a) Significant events;
- b) Accounting information;
- c) Auditing information; and
- d) Specific site information such as Device file, Employee file, game profiles, etc.

## 2.6 Communication Protocol

**2.6.1 General Statement.** Each component of an electronic table game system must function as indicated by the communication protocol implemented. All protocols must use communication techniques that have proper error detection and/or recovery mechanisms which are designed to prevent unauthorized access or tampering, employing Data Encryption Standards (DES) or equivalent encryption with secure seeds or algorithms. Any alternative measures will be reviewed on a case-by-case basis, with regulator approval.

## 2.7 System Integrity

**2.7.1 General Statement.** The Laboratory will perform certain tests to determine whether or not outside influences affect game fairness to the player or create cheating opportunities. This certification applies exclusively to tests conducted using current and retrospective methodology developed by Gaming Laboratories International, LLC (GLI). During the course of testing, GLI inspects for marks or symbols indicating that a device has undergone product safety compliance testing. Gaming Laboratories International, LLC also performs, where possible, a cursory review of submissions and information contained therein related to Electromagnetic Interference (EMI), Radio Frequency Interference (RFI), Magnetic Interference, Liquid Spills, Power Fluctuations and Environmental conditions. Electrostatic Discharge Testing is intended only to simulate techniques observed in the field being used to attempt to disrupt the integrity of electronic table game systems. Compliance to any such regulations related to the aforementioned testing is the sole responsibility of the device manufacturer. GLI claims no liability and makes no representations with respect to such non-gaming testing. An electronic table game system shall be able to withstand the following tests, resuming game play without operator intervention:

- a) **Random Number Generator.** If implemented, the random number generator and random selection process shall be impervious to influences from outside the device, including, but not limited to, electro-magnetic interference, electro-static interference, and radio frequency interference;
- b) **Electro-Static Interference.** Protection against static discharges requires that the table game's conductive cabinets be earthed in such a way that static discharge energy shall not permanently damage, or permanently inhibit the normal operation of the electronics or other components within the electronic table game. The electronic table game may exhibit temporary disruption when subjected to a significant electro-static discharge greater than human body discharge, but they shall exhibit a capacity to recover and complete any interrupted play without loss or corruption of any control or critical data information associated with the electronic table game. The tests will be conducted with a severity level of a maximum of 27KV air discharge;

**2.7.2 Physical Security** The server or system component(s) must reside in a secure area where access is limited to authorized personnel. It is recommended that logical access to the game be logged on the system or on a computer or other logging device that resides outside the secure area and is not accessible to the individual(s) accessing the secure area. The logged data should include the time, date, and the identity of the individual accessing the secure area. The resulting logs should be kept for a minimum of 90 days.

## 2.8 Random Number Generator

**2.8.1 General Statement** The Random Number Generator (RNG) is the selection of game symbols or production of game outcomes. The regulations within this section are only applicable to electronic table games that utilize an RNG, which shall:

- a) Be statistically independent;
- b) Conform to the desired random distribution;
- c) Pass various recognized statistical tests; and
- d) Be unpredictable.

### 2.8.2 Game Selection Process

- a) All Combinations and Outcomes Shall Be Available. Each possible permutation or combination of game elements that produces winning or losing game outcomes shall be available for random selection at the initiation of each play, unless otherwise denoted by the game.
- b) No Near Miss. After selection of the game outcome, the electronic table game shall not make a variable secondary decision, which affects the result shown to the player. For instance, the random number generator chooses an outcome that the game will be a loser.
- c) No Corruption from Associated Equipment. An electronic table game shall use appropriate protocols that effectively protect the random number generator and random

selection process from influence by associated equipment, which may be communicating with the electronic table game.

**2.8.3 Applied Tests.** The test laboratory may employ the use of various recognized tests to determine whether or not the random values produced by the random number generator pass the desired confidence level of 99%. These tests may include, but are not limited to:

- a) Chi-square test;
- b) Equi-distribution (frequency) test;
- c) Gap test;
- d) Overlaps test;
- e) Poker test;
- f) Coupon collector's test;
- g) Permutation test;
- h) Kolmogorov-Smirnov test;
- i) Adjacency criterion tests;
- j) Order statistic test;
- k) Runs tests (patterns of occurrences should not be recurrent);
- l) Interplay correlation test;
- m) Serial correlation test potency and degree of serial correlation (outcomes should be independent of the previous game);
- n) Tests on subsequences; and
- o) Poisson distribution.

**2.8.4 Background RNG Activity.** The RNG shall be cycled continuously in the background between games and during game play at a speed that cannot be timed by the player. The test laboratory recognizes that some time during the game, the RNG may not be cycled when interrupts may be suspended. The test laboratory recognizes this but shall find that this exception shall be kept to a minimum.

**2.8.5 RNG Seeding.** The first seed shall be randomly determined by an uncontrolled event. After every game there shall be a random change in the RNG process (new seed, random timer, delay, etc.). This will verify the RNG doesn't start at the same value, every time. It is permissible not to use a random seed; however, the manufacturer must ensure that games will not synchronize.

**2.8.6 Live Game Correlation.** Unless otherwise denoted on the pay glass/display, where the electronic table game plays a game that is recognizable such as Poker, Blackjack, Roulette, etc., the same probabilities associated with the live game shall be evident in the simulated game. For example, the odds of getting any particular number in Roulette where there is a single zero (0) and a double zero (00) on the wheel, shall be 1 in 38; the odds of drawing a specific card or cards in Poker shall be the same as in the live game.

**2.8.7 Card Games.** The requirements for games depicting cards being drawn from a deck are the following:

- a) At the start of each game/hand, the cards shall be drawn fairly from a randomly-shuffled deck; the replacement cards shall not be drawn until needed, and in accordance with game rules, to allow for multi-deck and depleting decks;
- b) Cards once removed from the deck shall not be returned to the deck except as provided by the rules of the game depicted;
- c) As cards are removed from the deck they shall be immediately used as directed by the rules of the game (i.e., the cards are not to be discarded due to adaptive behavior by the electronic table game system)

*NOTE: It is acceptable to draw random numbers for replacement cards at the time of the first hand random number draw. Provided the replacement cards are sequentially used as needed.*

## 2.9 Maintenance of Critical Memory

**2.9.1 General Statement.** Critical memory storage may be maintained by the player terminal or the system, where applicable. Critical memory shall be maintained by a methodology that enables errors to be identified. This methodology may involve signatures, checksums, partial checksums, multiple copies, timestamps and/or effective use of validity codes.

*Note: The "Maintenance of Critical Memory" section is not intended to preclude the use of alternate storage media types, such as hard disk drives, for the retention of critical data. Such alternate storage media is still expected to maintain critical data integrity in a manner consistent with the requirements in this section, as applicable to the specific storage technology implemented.*

**2.9.2 Comprehensive Checks.** Comprehensive checks of critical memory shall be made following game initiation but prior to display of game outcome to the player. It is recommended that critical memory is continuously monitored for corruption. Test methodology shall detect failures with an extremely high level of accuracy.

**2.9.3 Unrecoverable Critical Memory.** An unrecoverable corruption of critical memory shall result in an error. The memory error shall not be cleared automatically and shall result in a tilt condition, which facilitates the identification of the error and causes the electronic table game to cease further function. *The critical memory error shall also cause any communication external to the electronic table game to immediately cease.* An unrecoverable critical memory error shall require a full non-volatile memory clear performed by an authorized person.

**2.9.4 Non-volatile Memory and Program Storage Device Space.** Non-volatile memory space that is not critical to the electronic table game operations are not required to be validated.

## 2.10 Program Storage Device Requirements

**2.10.1 General Statement.** The term *Program Storage Device* is defined to be the media or an electronic device that contains the critical control program components. Device types include:

but are not limited to EPROMs, compact flash cards, optical disks, hard drives, solid state drives, USB drives, etc. This partial list may change as storage technology evolves. All program storage devices shall:

- a) Be housed within a fully enclosed and locked logic compartment;
- b) Be clearly marked with sufficient information to identify the software and revision level of the information stored in the device. In the case of media types on which multiple programs may reside it is acceptable to display this information via the attendant menu.
- c) Validate themselves during each processor reset;
- d) Validate themselves the first time they are used; and
- e) CD-ROM, DVD, and other optical disk-based Program Storage shall:
  - i. Not be a re-writeable disk; and
  - ii. The "Session" shall be closed to prevent any further writing.

## 2.11 Control Program Requirements

### 2.11.1 Control Program Verification

- a) EPROM-based Program Storage:
  - i. Electronic table games which have control programs residing in one or more EPROMs must employ a mechanism to verify control programs and data. The mechanism must use at a minimum a checksum; however, it is recommended that a Cyclic Redundancy Check (CRC) be used (at least 16-bit).
- b) Non-EPROM Program Storage shall meet the following rules:
  - i. The software shall provide a mechanism for the detection of unauthorized and corrupt software elements, upon any access, and subsequently prevent the execution or usage of those elements by the electronic table game. The mechanism must employ a hashing algorithm which produces a message digest output of at least 128 bits.



- ii. In the event of a failed authentication, after the game has been powered up, the electronic table game should immediately enter an error condition and display an appropriate error. This error shall require operator intervention to clear and shall not clear until: the data authenticates properly, following the operator intervention, or the media is replaced or corrected, and the electronic table game's memory is cleared.

*NOTE: Control Program Verification Mechanisms may be evaluated on a case-by-case basis and approved by the regulator and the independent testing laboratory based on industry standard security practices*

- c) Alterable Media shall meet the following rules in addition to the requirements outlined in 2.11.1(b):
  - i. Employ a mechanism which tests unused or unallocated areas of the alterable media for unintended programs or data and tests the structure of the media for integrity. The mechanism must prevent further play of the electronic table game if unexpected data or structural inconsistencies are found.
  - ii. Employ a mechanism for keeping a record anytime a control program component is added, removed, or altered on any alterable media. The record shall contain a minimum of the last ten (10) modifications to the media and each record must contain that date and time of the action, identification of the component affected, the reason for the modification and any pertinent validation information.

*NOTE: Alterable Program Storage does not include memory devices typically considered to be alterable which have been rendered "read-only" by either a hardware or software means.*

**2.11.2 Program Identification.** Program storage devices which do not have the ability to be modified while installed in the electronic table game during normal operation, shall be clearly marked with sufficient information to identify the software and revision level of the information stored in the devices.

**2.11.3 Independent Control Program Verification.** The system server(s) and each component of the electronic table game that would have an effect on the integrity of the electronic table game shall have the ability to allow for an independent integrity check of the device's software from an outside source and is required for all control programs that may affect the integrity of the game. This must be accomplished by being authenticated by a third-party device, which may be embedded within the game software (see NOTE below), by having an interface port for a third-party device to authenticate the media, or by allowing for removal of the media such that it can be verified externally. This integrity check will provide a means for field verification of the software to identify and validate the program. The test laboratory, prior to device approval, shall evaluate the integrity check method.

*NOTE: If the authentication program is contained within the game software, the manufacturer must receive written approval from the test laboratory prior to submission.*

## 2.12 Player Interface Terminal Requirements

**2.12.1 General Statement.** Player interface terminals may either be a display mechanism where the system performs all operations of the game (Thin Client), or contain its own logic function in conjunction with the electronic table game system (Thick Client). In either case, the player interface terminal(s) must meet the hardware and software requirements outlined within each jurisdiction's applicable requirements for gaming devices, to ensure security and player safety. In the absence of these jurisdictional specific requirements, the GLI-11 requirements should be used.

*NOTE: Requirements that cannot be met as a result of manual intervention performed by the live dealer must be addressed in operational procedures and submitted to the Test Laboratory.*



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**30 SEP 2014**

**To :** Dr. Rita A. Sablan, Education Commissioner of the  
Public School System  
Alan Fletcher, Chief Executive Officer  
Commonwealth Utilities Corporation

**From :** Gilbert J. Birnbrich, Attorney General

**Subject:** Interpretation and effect of PL 18-19 in light of PL 15-35, section 8425

**ATTORNEY GENERAL'S LEGAL OPINION NO. 2014-02**

The Office of the Attorney General has been asked to give an opinion as to the interpretation and effect of Public Law 18-19, which mandates that the Commonwealth Utilities Corporation ("CUC") charge PSS the commercial rate for water and waste water, in light of previously enacted and potentially inconsistent section 8425 of Public Law 15-35, which granted the Public Utilities Commission ("PUC") approval power on any rate or charge of a regulated entity.

**QUESTION PRESENTED**

Does PL 18-19 effectively require CUC to charge PSS the commercial rate for water and waste water, notwithstanding section 8425 of PL 15-35?

**SHORT ANSWER**

Yes. Firstly, through its police powers, the legislature has the authority to fix public utility rates. Secondly, in passing PL 18-19, legislators are presumed to be aware of preexisting legislation and, when two statutes are irreconcilably inconsistent, the last-in-time and/or more specific statute is controlling pursuant to well-established rules of statutory interpretation.

**BACKGROUND**

On October 24, 2006, Acting Governor Timothy P. Villagomez approved PL 15-35 to "create a Public Utilities Commission." In doing so, the Legislature mandated that: "Notwithstanding any other provision of law, no rate or charge for any regulated entity shall become effective without the approval of the Commission." 8 CMC § 8425. "Regulated entity ... means all persons regulated by the Commission, including public utilities, telecommunications companies and the cable television companies." 8 CMC § 8402(f).

On September 24, 2013, Acting Governor Jude U. Hofschneider approved PL 18-19 to “mandate the Commonwealth Utilities Corporation to change the water and waste water rate for the Public School System to commercial rate; and for other purposes.” In support, the Legislature found that PSS was paying dramatically increased rates for water and waste water, which contributed to budgetary constraints, such as classroom overcrowding and inability to hire teachers. PL 18-19, § 1. The new law mandated: “Notwithstanding any law or regulation to the contrary, the [CUC] shall charge the [PSS] the commercial rate for water and waste water.” *Id.* at § 2(a). Also, under PL 18-19, CUC is permitted to recover decreased revenues by increasing rates for other customers paying the government rate, but not for residential or commercial consumers. *Id.* at § 2(b)-(c).

## LEGAL ANALYSIS

### I. The Legislature Has Authority to Fix Public Utility Rates

“The legislative branch possesses the police authority to regulate public utilities and the power to fix public utility rates in order to secure ... just, uniform, and nondiscriminatory rates.” *Beaver v. Qwest, Inc.*, 31 P.3d 1147, 1150 (Utah 2001); see also *Columbia Gas of West Virginia, Inc. v. Public Service Com’n of West Virginia*, 311 S.E.2d 137, 140 (W.Va. 1983) [“in the exercise of its police powers, a state legislature has the right to set rates for public utilities in the public interest”]. In fixing rates, the Legislature has broad discretion and conclusive authority. *St. Joseph Stock Yards Co. v. U.S.* (1936) 2987 U.S. 38, 50-51.

For example, the Legislature may enact rate-fixing mandates, such as a moratorium on increases, without offending constitutional norms. See *Columbia Gas of West Virginia, Inc.*, 311 S.E.2d at 143-144. Any rates a legislature deems just and reasonable are presumptively valid, unless the objecting party can show a clear constitutional violation. *Id.* at 141. Finally, legislative mandates addressing utility rates are controlling and not subject to review by utilities commissions. See, e.g., *Detroit Edison Co. v. Michigan Public Service Com’n*, 691 N.W.2d 61, 67-68 (Mich.App. 2004) [“we accord deference to ... the PSC absent some breach of ... a statutory mandate or limitation”];

In this case, the Legislature created PUC by statute under PL 15-35, prescribing various procedures and standards for fixing rates. Subsequently, PUC’s powers were partially abrogated by PL 18-19, a legislative mandate. In enacting PL 18-19, the Legislature made findings regarding PSS’s limited budget and the policy reasons necessitating a rate reduction. While reducing rates for PSS, the Legislature also provided CUC with alternative means of recovering decreased revenues. The legislative findings and provision for alternative revenue appear just and reasonable; no clear constitutional violation is apparent. Therefore, the legislative mandate of PL 18-19 is presumptively valid, albeit in potential partial conflict with PL 15-35, § 8425.

### II. Interpretation of Conflicting Statutes

Commonwealth courts will interpret a statute with its plain language, reading it “with an aim to effect the plain meaning of [its] object.” *Commonwealth v. Minto*, 2011MP 14 ¶ 34 (quoting *Commonwealth v. Crisostomo*, 2005 MP 9 ¶ 39). Here, both statutes are very clear and straightforward: PL 15-35 grants PUC approval power over all rate changes, whereas PL 18-19 subsequently removed that power with respect to water and waste water services rendered to PSS. Thus, the issue at hand turns on proper reconciliation of two seemingly inconsistent statutes. The

following three principles provide guidance.

*a. Legislative intent favors PL 18-19*

First, “it is a settled principle of statutory construction that courts presume the Legislature drafts and passes statutes with full knowledge of existing law.” *W. Virginia Health Care Cost Review Auth. v. Boone Mem’l Hosp.*, 472 S.E.2d 411, 421 (W.Va. 1996), citing *Cannon v. University of Chicago* (1979) 441 U.S. 677, 696-698; *Miles v. Apex Marine Corp.* (1990) 498 U.S. 19, 32. Thus, in this case, we presume that the legislature was fully aware of PL 15-35 and its grant of approval power to PUC for rate changes when it enacted PL 18-19. Nonetheless, the legislature “mandated” that CUC charge PSS with the commercial rate under PL 18-19 “notwithstanding” the previous provisions of PL 15-35. Thus, in enacting PL 18-19, we presume that the Legislature knew of PUC’s *legislatively granted* authority under PL 15-35 and intended to bypass that approval power.

The reverse cannot be said for PL 15-35, which was enacted seven years earlier. The law does not presume that legislators will have knowledge of *future* legislation. Perhaps, one could argue that PL 15-35 sought to grant PUC an irrevocable and unamendable approval power over any rate change for any regulated entity. First, the plain language does not support such an expansive interpretation. Instead, PL 15-35 indicates an express grant of authority notwithstanding any other *then-existing* provision of law. Legislators are elected to enact, modify, revise, and repeal legislation, which is an ongoing process. Giving up the power to legislate indefinitely is a radical outcome that should not be lightly inferred. Logically, the legislators who enacted PL 15-35 could not possibly consider all potential circumstances that might justify revision of the law. Therefore, in this case, this office will not infer that the 2006 legislators intended to grant PUC an irrevocable approval power.

*b. The last in time rule favors PL 18-19*

Second, “[w]hen two statutes conflict the general rule is that the statute last in time prevails as the most recent expression of the legislature’s will.” *Boudette v. Barnette*, 923 F.2d 754, 757 (9th Cir. 1991). The same principle applies when two equivalent national authorities conflict, such as a federal statute and an international treaty. See, e.g., *Reid v. Covert* (1957) 354 U.S. 1, 17-18 [subsequent federal statute trumps inconsistent prior treaty]; *Cook v. U.S.* (1933) 288 U.S. 102, 118-119 [subsequent treaty trumps inconsistent prior federal statute]. Indisputably, PL 18-19 was enacted almost seven years after PL 15-35. In line with the analysis in the preceding paragraphs, PL 18-19 should prevail as an updated and more recent expression of the Legislature’s will. PL 18-19 demonstrates the current legislative intent to adjust the rate charged to PSS for water and waste water notwithstanding the legislature’s previous grant of approval authority to PUC under PL 15-35.

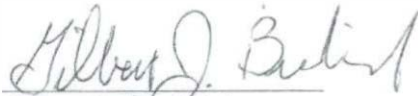
*c. Preference given to more specific statute favors PL 18-19*

Third, “[w]here there is no clear intention otherwise, a specific statute will not be controlled or nullified by a general one, regardless of the priority of enactment.” *Estate of Faisao v. Tenorio*, 4 NMI 260, fn. 15 (1995), citing *Radzanower v. Touche Ross & Co.* (1976) 426 U.S. 148, 153. For example, The NMI Supreme Court found that the Commonwealth Probate Code, which covered transfer of *all* intestate property, was more general than the Marital Act, which *specifically* addressed transfer of homesteads to surviving spouses. *Estate of Faisao*, 4 NMI 260. Similarly, a federal act addressing venue for only national banks was more specific than the Securities Exchange Act, which included a general venue provision applicable to all potential defendants. *California ex rel. Sacramento Metropolitan Air Quality Management Dist. v. U.S.*, 215 F.3d 1005, 1013 (9<sup>th</sup> Cir. 2000).

Here, the analysis turns on which statute is deemed "general" and which is "specific." PL 15-35 is very broad in that it creates an entire Chapter of laws, including numerous sections and subsections. See 4 CMC §§ 8401-8461. Section 8425, which is at issue here, is short and consists of only two sentences, intended to apply to all rates or charges for all regulated entities. While PL 18-19 clearly states "notwithstanding any other provision of law," so does PL 18-19. On the other hand, PL 18-19 addresses the narrow issue of *commercial water and waste water charges for only PSS*. The legislative findings echo the specificity of its intent. Thus, PL 15-35 is more analogous to the expansive Probate Code discussed in *Estate of Faisao*, whereas PL 18-19 creates a narrow contradiction, much like homestead exception of the Marital Act also discussed in *Estate of Faisao*. Thus, one can easily conclude that PL 18-19 creates a more specific legal limitation on the broader, more general approval power conferred upon PUC under PL 13-35.

### CONCLUSION

As discussed above, PL 18-19 provides a valid, albeit conflicting, statutory basis for regulating utilities and fixing rates. No legal or factual showing of unconstitutionality has been found. Compared to PL 15-35, PL 18-19 provides more recent and specific policy concerns in support of a rate reduction for PSS. Under the basic canons of construction discussed above, including legislative intent, timing, and specificity, PL 18-19 is enforceable *notwithstanding* PL 15-35, § 8425. Accordingly, it is the opinion of this office that PL 18-19 legally mandates CUC to charge PSS the commercial rate for water and waste water services. Any suggestion that PUC's *legislatively created* authority is superior to that of the Legislature or that PUC is not bound by a legislative mandate is unsupported and would be misplaced.



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9.30.14  
Date