

**(i) Related Information**

For more information about this AD, contact James Gray, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7742; fax: 781-238-7199; email: [james.e.gray@faa.gov](mailto:james.e.gray@faa.gov).

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

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(i) General Electric Company Service Bulletin No. GENx-1B S/B 72-0107, Revision 2, dated September 14, 2012.

(ii) General Electric Company Service Bulletin No. GENx-2B S/B 72-0091, Revision 1, dated September 14, 2012.

(3) For General Electric Company service information identified in this AD, contact General Electric Company, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215, phone: (513) 552-3272; email: [geae.aoc@ge.com](mailto:geae.aoc@ge.com).

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Issued in Burlington, Massachusetts, on September 17, 2012.

**Diane M. Cook,**

*Acting Manager, Engine & Propeller Directorate, Aircraft Certification Service.*

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**DEPARTMENT OF THE INTERIOR****National Indian Gaming Commission****25 CFR Part 547**

**RIN 3141-AA27**

**Minimum Technical Standards for Class II Gaming Systems and Equipment**

**AGENCY:** National Indian Gaming Commission, Interior.

**ACTION:** Final rule.

**SUMMARY:** The National Indian Gaming Commission (NIGC) is amending its technical standards to change the order of the first five sections; add definitions and amend existing definitions; amend requirements and time restrictions for

grandfathered Class II gaming systems; amend the requirements concerning minimum odds for Class II games; amend standards for test labs; remove references to the Federal Communications Commission and Underwriters Laboratory; require a player interface to display a serial number and date of manufacture; amend requirements concerning approval of downloads to a Class II gaming system; and clarify the term “alternate standard.”

**DATES:** *Effective Date:* October 22, 2012.

**FOR FURTHER INFORMATION CONTACT:**

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**SUPPLEMENTARY INFORMATION:****I. Background**

The Indian Gaming Regulatory Act (IGRA or Act), Public Law 100-497, 25 U.S.C. 2701 *et seq.*, was signed into law on October 17, 1988. The Act establishes the NIGC and sets out a comprehensive framework for the regulation of gaming on Indian lands. On October 8, 2008, the NIGC published a final rule in the **Federal Register** called *Technical Standards for Electronic, Computer, or Other Technologic Aids Used in the Play of Class II Games*. 73 FR 60508. The rule added a new part to the Commission's regulations establishing a process for ensuring the integrity of electronic Class II games and aids. The standards were designed to assist tribal gaming regulatory authorities and operators with ensuring the integrity and security of Class II gaming, the accountability of Class II gaming revenue, and provide guidance to equipment manufacturers and distributors of Class II gaming systems. The standards do not classify which games are Class II and which games are Class III.

On November 18, 2010, the NIGC issued a Notice of Inquiry and Notice of Consultation advising the public that the NIGC endeavored to conduct a comprehensive review of its regulations and requesting public comment on which were most in need of revision, in what order the Commission should review its regulations, and the process NIGC should utilize to make revisions. 75 FR 70680. On April 4, 2011, after consulting with tribes and reviewing all comments, the NIGC published a Notice of Regulatory Review Schedule (NRR) setting out a consultation schedule and process for review. 76 FR 18457. Part 547 was included in the third regulatory group reviewed pursuant to the NRR.

**II. Previous Rulemaking Activity**

On July 8, 2011, the Commission began a series of tribal consultations on part 547. Based in part on the recommendations to the Commission during consultations, on August 10, 2011, the Commission requested tribes nominate tribal representatives to serve on a Tribal Advisory Committee (TAC) to assist the Commission in drafting changes to part 543 and these technical standards. Beginning on October 20, 2011, the TAC held four meetings in which the Commission participated. All of the meetings were open to the public and three of the four were transcribed. On January 12, 2011, as a result of those meetings, the TAC submitted a proposed part 547 regulation to the Commission.

Upon reviewing the TAC's recommendation, and taking into consideration comments received through tribal consultations, the Commission published a discussion draft of the amended technical standards on its Web site. The discussion draft adopted a number of the TAC's recommendations, such as moving requirements that more appropriately belong to the Minimum Internal Control Standards found at 25 CFR part 543.

After publishing the discussion draft, the Commission conducted consultations in Mayetta, KS and San Diego, CA. In addition to tribal consultations, the Commission requested public comment on the discussion draft. Considering the comments received in response to the discussion draft, the Commission published a Notice of Proposed Rulemaking (“NPRM”) on June 1, 2012. 77 FR 32465. The NPRM invited interested parties to participate in the rulemaking process by submitting comments and any supporting data to the NIGC by July 31, 2012. After receiving several requests to extend the comment period, the Commission published notification in the **Federal Register** that it would do so by two weeks, establishing a new comment deadline of August 15, 2012. 77 FR 43196.

In addition to soliciting public comment in the **Federal Register**, the Commission also conducted an additional five tribal consultations to discuss the proposed rule with interested tribes and industry representatives. As with the discussion draft, the consultations and written comments have proven invaluable to the Commission in making needed amendments to the Class II technical standards.

### III. Review of Public Comments

In response to our Notice of Proposed Rulemaking, published June 1, 2012, 77 FR 32465, we received the following comments.

#### General Comments

*Comment:* A number of commenters made miscellaneous editorial suggestions not intended to change the substance of the technical standards but to improve sentence structure, correct grammar, and preserve consistency of usage throughout the document.

*Response:* The Commission accepted all such changes where they improve clarity and editorial consistency, and these are reflected throughout the final rule. Substantive changes are addressed in the responses to comments below.

*Comment:* A number of commenters recommended the Commission accept, without alteration, the draft of the Technical Standards provided to it by its tribal advisory committee. Other commenters recommended the Commission adopt a draft of the regulation prepared and submitted by the Tribal Gaming Working Group ("TGWG").

*Response:* The Commission greatly appreciates the assistance and advice of the TAC in developing these amendments to the technical standards. The Commission is also aware of the hours the TGWG put into its recommended part 547 and appreciates its participation in the process. After carefully reviewing those recommendations, and in several cases incorporating them into the NPRM and this final rule, the Commission declines to adopt either proposal whole-cloth.

*Comment:* A few commenters suggested that the NIGC lacks authority to implement or enforce these standards.

*Response:* The Commission, pursuant to IGRA, possesses the authority to adopt these technical standards. Congress expressed the concern that gaming under IGRA be "conducted fairly and honestly by both the operator and players" and "to ensure that the Indian tribe is the primary beneficiary of the gaming operation." 25 U.S.C. 2702(2). The technical standards are designed to ensure these concerns are addressed. These standards implement the authority granted the Commission to monitor, inspect, and examine Class II gaming, 25 U.S.C. 2706(b)(1)-(4), and to promulgate such regulations as it deems appropriate to implement the provisions of IGRA. 25 U.S.C. 2706(b)(10).

#### Regulation Title

*Comment:* One commenter suggested simplifying the title of part 547 from

*Minimum Technical Standards for Gaming Equipment Used With the Play of Class II Games* to the simpler title of *Minimum Technical Standards for the Play of Class II Gaming Systems*.

*Response:* The Commission agrees the title for this part should be simplified. It declines to adopt the recommended title, though, because this part applies not only to Class II gaming systems, but to all equipment, including computer, electronic, or other technologic aids used with Class II games. The Commission instead has amended the part's title to *Minimum Technical Standards for Class II gaming systems and equipment*.

#### 547.2 Definitions

*Comment:* Several commenters recommended amending the definition of *Agent* to permit the use of computer applications to perform the function(s) of an agent.

*Response:* The Commission declines to accept this recommendation. The term "computer applications" is undefined and potentially broad. Any hardware under the control of an agent is exempt from the testing requirements of this part, and thus amending the definition of *Agent* in this manner potentially would exempt hardware that is subject to testing requirements such as financial instrument acceptors, financial instrument dispensers, etc.

*Comment:* One commenter asked the Commission to clarify that the definition of *Reflexive software* means that the Class II gaming system can never look at the historical activity or status of the game or player to deprive a player of an award or to declare a player a winner. The commenter distinguishes the awarding of a prize as a result of a reflexive decision by software from "good neighbor" awards that are not part of the pay-table which, according to the commenter, are "promotions."

*Response:* The commenter is correct that the definition of *Reflexive software* is not intended to encompass "promotional awards" made based on the player's accumulated "player points" or the player's membership in a casino player's club. Such awards are not based on the outcome of the game, but another set of factors separate and apart from the game results. Rather, the definition of *Reflexive software* is intended to encompass any decisions made by software that would change the outcome of the game. For example, a random ball draw produces a sequence of numbers that would entitle a player to the top advertised prize; then the system discards this sequence and replaces it with a new ball draw

sequence whereby the patron wins a lower prize.

*Comment:* Several commenters supported the removal of the definition of *Proprietary Class II gaming component* and the word "proprietary" from the definitions of *Cashless system* and *Voucher system*. The changes were first made in the discussion draft of part 547 published by the Commission, but removed from the NPRM. Commenters recommend, however, that the Commission reiterate and further clarify the reasons for including the new and changed definitions in the discussion draft in the first place, as well as the reason for removing it from the NPRM.

*Response:* The Commission appreciates the comments in support of the change. The intended purpose of the new and amended definitions was to distinguish the common back of the house component systems that communicate with all Class II gaming systems, regardless of the manufacturer, from those components that work exclusively with one manufacturer's Class II system. An example of such a system is a Class II gaming system with a voucher functionality that only allows a patron to use a *dispensed voucher* on other electronic player interfaces on the same Class II gaming system, and not on electronic player interfaces from a different Class II gaming system at the same tribal gaming facility. Conversely, voucher systems that are part of a common back of the house system allow a dispensed voucher to be used on any electronic player interface at the same tribal gaming facility.

Upon review of the standards, the Commission concluded that this definition is not necessary and has led to confusion. Therefore, it was removed from the proposed rule and not reinserted into this final rule.

#### 547.3 Who is responsible for implementing these standards?

*Comment:* Several commenters supported the NPRM's removal of language asserting that "TGRAs also regulate Class II gaming," but advocate changing § 547.3(a) to reflect that TGRAs are the primary regulators of Indian Gaming. Other commenters suggested that the Commission use this preamble to reiterate its position that tribes are the primary regulators of tribal gaming.

*Response:* The Commission declines to insert the requested language into the regulation. The Commission agrees that tribes are the primary regulators of Indian gaming, but has never understood that to mean that the regulatory authority of a TGRA is superior to that of the NIGC. Rather, the

Commission recognizes TGRAs are the day-to-day regulators of Indian gaming and the first line of oversight at every facility. Although the findings section of IGRA states that tribes have the exclusive right to regulate gaming activity on Indian lands, IGRA also establishes a regulatory scheme that includes the NIGC as well as tribes.

*547.4 What are the rules of general application for this part?*

*Comment:* Rather than require a game to meet a minimum odds requirement, these technical standards require that a player be informed if the odds of winning a top prize exceed 100 million to one. This change was made at the discussion draft stage, and comments were overwhelmingly supportive. One commenter, however, submitted comments in opposition to the change. The comment asserts that the NPRM's removal of a minimum odds requirement is not fair to the public. According to the comment, players have the right to expect that an advertised jackpot is winnable and the regulatory community has an obligation to protect that player's rights of expectation by establishing some minimum, guaranteed threshold. The commenter recommends reinserting a minimum odds requirement.

*Response:* The Commission respectfully disagrees and declines to accept the commenter's suggestion. This amendment allows operations to increase advertised top prizes, but also gives the player the ability to make an informed decision regarding whether to play a game that may have a higher pay-out, but decreased odds of winning.

*547.5 How does a tribal government, TGRA, or tribal gaming operation comply with this part?*

When implemented in 2008, the part 547 technical standards introduced several new requirements for Class II gaming systems designed to protect the security and integrity of Class II gaming systems and tribal operations. The Commission understood, however, that some existing Class II gaming systems might not meet all of the requirements of the technical standards. Therefore, to avoid any potentially significant economic and practical consequences of requiring immediate compliance, the Commission implemented a five-year "grandfather period" for eligible gaming systems. The Commission believed that a five year period was sufficient for market forces to move equipment toward compliance with the standards.

To qualify as a grandfathered game pursuant to the current regulations, a gaming system must have been

submitted to a testing laboratory within 120 days of November 10, 2008. The testing laboratory must have then reviewed the gaming system for compliance with a specific, minimum set of requirements, and have issued a report to the applicable TGRA, which must have then approved the gaming system for grandfather status. At the end of the five year period—November 10, 2013—the grandfathered systems must be brought into compliance with the requirements of part 547 or removed from play.

*Comment:* The Commission received several comments on the grandfathering provisions, the majority of which focused on the five year duration. Commenters unanimously opposed maintaining the sunset provision in the grandfather clause, citing serious negative financial impact of requiring the grandfathered systems to be brought into full compliance or removed from play. In response to questions posed by the NIGC in the NPRM, commenters submitted that withdrawing and replacing grandfathered systems could cost in the range of \$46 million to \$65.5 million. One commenter asserts that twenty Oklahoma gaming tribes estimate that they will lose in excess of \$82 million. One commenter also pointed out that, not only will a sunset provision have a significant economic impact in the future, many tribes have already spent millions of dollars developing and defending the legal status of the grandfathered games.

Other commenters noted that grandfathered games are valid, legal games, which have never presented, nor do they now present a risk of any kind to either the tribes or patrons. Commenters stated that they do not understand how a game can be safe and reliable one day, but not the very next. According to these commenters, no evidence has been provided that grandfathered games present some hidden danger. If there is something wrong with a particular game, though, the TGRA will act to correct it.

Other commenters point out that tribes obtained court decisions determining that certain grandfathered games are lawful Class II games. Some commenters request the NIGC include a provision explicitly stating that nothing in this part is intended to prohibit the continued use of any gaming system or component ruled to be Class II by any judicial rulings.

In lieu of mandating grandfathered systems by removed by a specific date, other commenters suggested that a more reasoned regulatory approach would be one in which grandfathered Class II gaming systems are eliminated from

operation through attrition and/or market forces. One commenter noted the Commission's calculation that such removal through attrition or market forces would have occurred within the five year sunset provision was clearly wrong.

*Response:* The Commission appreciates all of the articulate, well reasoned comments it received on this issue. This, more than any other topic, has been the subject of long deliberation and analysis within the Commission. The Commission acknowledges that grandfathered machines have, for the most part, continued to operate with relatively few problems to the patron or the gaming operations. Nevertheless, lack of a major incident in the past does not mean that the grandfathered Class II gaming systems pose no risk to patrons and the gaming operation. For example, § 547.15 of this Rule sets minimum requirements for security of sensitive data and wireless and wired communications. Because a grandfathered system does not need to meet this standard, there may be a risk of data being intercepted or tampered with, when that data is constantly being transmitted to/from equipment on the floor.

The Commission agrees with commenters, however, that the prior Commission's analysis regarding the continued economic viability of the grandfathered systems has proven to be mistaken. The Commission established the five year sunset provision in the midst of a much stronger economy. In the time that has followed the economic downturn, though, many tribal gaming operations have set new priorities that may require keeping a grandfathered system on the gaming floor for a longer period of time.

Balancing those economic needs against a risk that increases as technology advances and grandfathered machines remain static, the Commission extended the grandfathered system by an additional five years. Under this final rule, a grandfathered system may continue in operation until November 10, 2018.

The Commission declines, however, to insert language conveying that nothing in this part is intended to prohibit the continued use of any gaming system or component ruled to be Class II by any judicial rulings. Including such a provision may lead to the false impression that this part is intended to address classification. It is not. Nothing in part 547 bears on the classification of a game as Class II or Class III. The provision requires only that, for any Class II game to be available for play, the game must have

been certified as a grandfathered Class II gaming system or comply with the standards in part 547, and that systems must comply with all standards in part 547 by November 10, 2018.

*Comment:* Several commenters recommended removing the limitation in part 547 that only those systems manufactured before November 10, 2008 may be submitted for certification for grandfathering. The commenters recommend that, instead, the Commission amend § 547.5(b) to include as grandfathered games, all Class II gaming systems certified as grandfathered prior to the effective date of this final rule.

*Response:* The Commission declines to adopt the commenters' suggestion to allow Class II gaming systems manufactured after November 10, 2008 to be certified as grandfathered systems. When the current regulation was published in 2008, it was clear that any Class II gaming system manufactured from that date forward had to meet the minimum technical standards contained in part 547. As a result, there should not be any Class II gaming systems manufactured after November 10, 2008 that do not meet those standards.

The Commission understands, however, there are several Class II gaming systems manufactured before November 10, 2008 that may not have been submitted for grandfathering certification within 120 days of November 10, 2008, as the current rule requires. The Commission heard myriad reasons as to why a manufacturer or gaming operation may not have submitted systems for grandfathering certification. For example, Class II systems that, at the time, seemed unmarketable have once again become in demand for economic reasons. The Commission agrees that games that would otherwise be usable as grandfathered Class II system should be eligible for certification. For this reason, the Commission is reopening the time period to certify a Class II gaming system manufactured before November 10, 2008, as a grandfathered system.

*Comment:* Several commenters raised a concern that, as written, § 547.7(a) may require any Class II game system manufactured before November 10, 2008, regardless of whether the game is otherwise fully compliant with part 547, to be submitted for grandfather certification.

*Response:* The Commission amended the language found in the NPRM to make clear that, if a game is fully compliant, it does not need to be submitted for certification pursuant to § 547.5(a). The section now states, "[a]ny Class II gaming system

manufactured before November 10, 2008, that is not already certified pursuant to this sub-section or compliant with paragraph (c) of this section may be made available for use at any tribal gaming operation if \* \* \*"

The Commission also amended the language of § 547.5(b) to clarify that, if a grandfather system is brought into full compliance with this part, it is no longer considered a grandfathered system and the strictures of §§ 547.5(a) and (b) no longer apply.

*Comment:* Commenters requested adding a provision that "nothing in this section is intended to prevent a TGRA from approving a grandfathered component to be added to a fully compliant Class II gaming system, or affect the certification of a fully compliant Class II gaming system."

*Response:* The Commission declines to adopt this suggestion. In the NPRM, the Commission asked for comments regarding repairs and modifications to Class II game systems. Specifically, the Commission wanted feedback on the effect of requiring all repairs, replacements, and modifications of grandfathered Class II gaming systems to be fully compliant with the regulations. Responses unanimously opposed any requirement that repairs or modifications be fully compliant. Upon considering those comments and deliberating, the Commission has left the repair, replacement, and modification sections as they are in the current rule. However, the goal of this part is to bring all Class II gaming systems further into compliance. Even the current regulation requires a modification, at a minimum, to maintain or advance the system's compliance with this part. To allow a grandfathered component to be added to a fully compliant system would work against that goal by allowing a system to be regressively modified, bringing it further out of, rather than into, compliance with these regulations. If a grandfathered component is added to an otherwise fully compliant Class II gaming system, that system ceases to be fully compliant.

*Comment:* Section 547.5(a)(7) of the NPRM requires a supplier of any player interface to designate each player interface with a permanently affixed label containing an identifying number and the date of manufacture. Commenters assert that this language may limit technology by eliminating the potential use of a consumer handheld device that is not distributed by the Class II game manufacturer or supplier. Commenters recommend that the proposed rule be modified to clarify that such a label is not required in the case

of consumer devices such as mobile devices and tablets.

*Response:* The Commission appreciates the commenters' concern, but stresses the importance of the requirement that every player interface contain this information. Ensuring that this information is displayed somewhere on the player interface protects both the player and the gaming operation. This is especially true when the player interface is as easily interchangeable as a handheld device or tablet. However, to lessen the potential burden on these devices, the Commission has changed the provision, now found in § 547.5(b), to require that the player interface "exhibit information consistent with § 547.7(d) of this part and any other information required by the TGRA." The provision no longer requires a "permanently affixed label" thereby giving the manufacturer or supplier additional options for ensuring that the information is displayed.

*Comment:* Section 547.5(c)(4) of the NPRM requires the test lab to confirm that "the operation of each player interface has been certified that it will not be compromised or affected by" certain events. Commenters point out, however, that testing labs do not test *each* player interface that is added to the gaming floor, but rather models of the player interface. Commenters request that the Commission amend this section to clarify that it does not require every player interface to undergo testing.

*Response:* The Commission agrees with the commenters and has changed the section to specify that the testing laboratory's written report confirms that "the operation of a player interface prototype has been certified."

#### 547.7 What are the minimum technical hardware standards applicable to Class II gaming systems?

*Comment:* One commenter suggested that the words "designed to be" should be inserted into the beginning of § 547.7(f) of the NPRM so that the section reads as follows: "Any class II gaming system components that store financial instruments and that are not *designed to be operated* \* \* \*."

*Response:* The Commission declines to adopt this recommendation, but acknowledges that the section is confusing as drafted in the NPRM. To clarify that this is a technical standard capable of being tested, rather than a control standard that belongs in part 543, the Commission has changed the section to read:

"Any financial instrument storage components managed by Class II gaming system software must be located within

a secure and locked area, cabinet, or housing that is of a robust construction designed to resist determined illegal entry and to protect internal components.”

*547.8 What are the minimum technical software standards applicable to Class II gaming systems?*

*Comment:* Several commenters expressed concern that the section’s prohibition of any automatic changes to game rules may operate to limit the use of certain technologies that may otherwise provide for full and clear disclosure of all rules and any changes thereof.

*Response:* The Commission changed § 547.8(b)(1) of the NPRM to state: “Each game played on the Class II gaming system must follow and not deviate from a constant set of rules for each game provided to players pursuant to § 547.16. There must be no undisclosed changes of rules.” Although the Commission still believes that there should be no automatic rule changes, it believes that the first sentence of the section adequately addresses its concern. By requiring each game to “follow and not deviate from a constant set of rules for each game,” it clearly prohibits the game from changing the rules given to the player pursuant to § 547.16.

*Comment:* When the Commission published the discussion draft of these standards, it carried over the current regulation’s requirement found in § 547.8(k)(3) that the validity of affected data stored in critical memory must be checked after certain events. The current regulation and discussion draft included both “each attendant paid win” and “each attendant paid progressive win” in that list of events. In response to the discussion draft, the Commission received a comment suggesting that it delete the reference to attendant paid progressive wins, as each attendant paid progressive win is just a subset of “each attendant paid win,” which is already noted in subparagraph (ii). The Commission initially agreed with the commenter, striking the requirement from the NPRM as redundant. Upon further review, however, and as the result of internal discussions, the Commission is reinstating the requirement.

“Attendant paid win” does not encompass “attendant paid progressive wins.” They are industry terms that have separate and distinct meanings. For example, Arizona Class III gaming compacts require that an attendant paid jackpot meter “shall not accumulate progressive amounts,” because attendant paid progressive payouts are

recorded separately. As a result, if the Commission leaves “each attendant paid progressive win” off of the list of events that trigger a check of the affected data, it would be leaving a gap in the testing standards for critical memory. Therefore, the Commission has reinscribed the requirement in this final rule.

*Comment:* Section 547.8 of the current technical standards contains certain requirements regarding entertaining displays. Section 547.8(a)(2)(ii) requires that, between plays of any game, or until a new game option is selected, the player interface must display the final results for the last game, including the entertaining display. Section 547.8(d)(2), meanwhile, requires that the entertaining display be included in the last game recall.

The NPRM removed references to entertaining displays from both of these sections. Nearly all of the comments expressed support for the change. Comments focused on the fact that the entertaining display has no significance to the outcome of the game. One commenter, however, opposed this change. The commenter suggested that the revision to § 547.8(a)(2)(ii) would require the game display to “go blank” between games.

The commenter also objected to the discussion draft no longer requiring last game recall to include the entertaining display. The commenter noted that when a pay-table on a player interface indicates that certain combinations of symbols will result in certain prizes, a player has a reasonable right to expect a prize if that combination of symbols appears on the pay line of the “entertainment only” display. The commenter asserts that if a game posts a prize schedule corresponding to the entertaining display instead of, or in addition to, the bingo card, and a prize paying combination of symbols appears in the entertaining display but no prizes are awarded, the integrity of the gaming system and reputation of the tribe may be called into question.

*Response:* The Commission respectfully disagrees. The standard, as proposed, does not require a blank screen. It requires the player interface to display the wager amount and all prizes and total credits won during the last game played, the final results of the last game played, and any default purchase or wager amount for the next play.

The Commission agrees that the reputation of an operation is of utmost importance and can reach beyond a particular facility to bolster or harm the reputation of Indian gaming. However, the game of bingo is dictated by the ball draw and the bingo card, not the

entertaining display. This is made clear by the disclaimer required by § 547.16, clarifying that actual prizes are determined by bingo play not the entertaining display. For the technical standards to require last game recall to include the entertaining display would incorrectly emphasize an aspect of the game that has no bearing on its outcome.

The Commission also disagrees with the commenter’s assessment that, if the entertaining display indicates a win, the patron should be paid regardless of the bingo results. Prizes should only be awarded on Class II electronic bingo games if the patron has won according to the bingo card.

*547.12 What are the minimum technical standards for downloading on a Class II gaming system?*

*Comment:* The proposed rule removed the requirement from § 547.12 that the TGRA authorize all downloads by a Class II gaming system. This change was first made in the discussion draft and many commenters requested clarification that nothing prohibits the TGRA from maintaining the download approval requirement. In the NPRM, the Commission reiterated that, as stated in § 547.3(a), the Commission recognizes that the TGRA regulates technical standards and, accordingly, may implement stricter standards. One commenter to the NPRM, however, stated that although they understand that the TGRA has the authority to require restrictions to control software downloads, the purpose of including this requirement in the technical standard is to ensure that manufacturers implement processes in the design of their products. According to the commenter, these standards should incorporate controls over digital content as part of the design of Class II systems rather than implement awkward or ineffective controls after the fact. According to the commenter, the original intent of the standard was to ensure control over downloadable content until the TGRA has performed an independent software authentication.

*Response:* The Commission agrees with the commenter that controls must be incorporated to ensure control over downloadable content until the TGRA has performed an independent software authentication. But the Commission also believes that § 547.12, as included in the NPRM, establishes those controls. The NPRM removed the requirement that downloads be conducted only as authorized by the TGRA. The Commission continues to believe that the download authorization requirement is an internal control that belongs in

part 543, where it has been relocated. The remaining requirements in § 547.12 ensure control over the downloaded information in multiple ways. The standard requires each system to use secure methodologies in delivering the downloaded data, and provide information that the TGRA will need when making its decision to approve or disapprove use of downloaded information. The standard also requires that any downloaded game software be capable of being verified by the Class II gaming system. All of these requirements provide the TGRA with the information necessary to exercise its authority, as required by the part 543 Minimum Internal Control Standards, to approve downloads.

*547.14 What are the minimum technical standards for electronic random number generation?*

*Comment:* Several commenters noted that changes made to § 547.14(b)(2) regarding random number generation (“RNG”) could negatively impact Class II gaming. According to the commenters, the current rule permits the use of various discretionary RNG tests. The proposed rule, however, mandated three specific tests. Although in many instances a Class II gaming system that has already been certified as compliant may have performed these now mandatory tests, other systems may not have been certified because the tests were not previously required. Thus, this new requirement may necessitate recertification of a fully compliant system at a substantial cost and inconvenience to tribal gaming operations. The commenters recommended either restoring the wording of the current rule or including language to clarify that these new requirements are not applicable to previously certified Class II gaming systems.

*Response:* The Commission agrees with the commenters and has restored the wording of § 547.14(b)(2) to that of the current rule. The change to three mandatory RNG tests was made after discussions with the TAC, and was based on the fact that the Commission was informed that these three tests were nearly always performed as a matter of course and should be made mandatory. However, the Commission acknowledges that this change would create an additional testing requirement and run the risk of decertifying several machines. Rather than making the mandatory testing requirement prospective, thereby creating a third category of certified games (those certified as grandfathered, those certified as fully compliant prior to the

effective date without the mandatory RNG tests, and those certified as fully compliant after the effective date with the mandatory RNG test), the Commission restored the language of the current rule, and all tests are discretionary. The Commission reminds TGRAs, however, that these are minimum standards—a TGRA may require that any of the tests be performed as part of the certification process.

*Comment:* Several commenters expressed concern about § 547.14(f) of the NPRM, which requires an RNG that provides output scaled to given ranges to use an unbiased algorithm. The current regulation specifies that a scaling algorithm is considered to be unbiased if the measured bias is no greater than 1 in 100 million. This ratio was later updated by NIGC bulletin to 1 in 50 million. The NPRM, however, changed the standard to require that the RNG use an unbiased algorithm and any bias be reported to the TGRA. Commenters assert that this is an unrealistic or untestable standard. In support, commenters point out that requiring *any* bias is a maximum standard, not minimum. Commenters also note that, because there will always be some—often insignificant—measure of bias, the standard will require near constant reporting to the TGRA.

*Response:* The Commission agrees with the commenters and has restored the current regulation’s standard. The rule still requires the RNG to use an unbiased algorithm, but specifies that a scaling algorithm is unbiased if the measured bias is no greater than 1 in 50 million. As the Commission previously explained in Bulletin 2008–4, this bias standard adequately protects the statistical randomness of the number generator.

*Comment:* Commenters suggest that the § 547.16(b) requirement that player interfaces continually display disclaimers is burdensome and unfeasible in smaller devices such as hand held devices. A suggested option is to include alternate language requiring the disclaimer to be displayed only until acknowledged by the player.

*Response:* The Commission declines to adopt this recommendation. The disclaimers are of critical importance, and, therefore, the Commission believes that it is necessary that they be displayed somewhere on the player interface at all times.

*547.17 How does a TGRA apply to implement an alternate minimum standard to those required by this part?*

*Comment:* Section 547.17 permits a TGRA to approve an alternate standard

to those set out in this part. That alternate standard, however, is subject to the review and approval of the NIGC Chair. To facilitate that review, the TGRA must submit (1) a detailed report to the NIGC, which must include an explanation of how the alternate standard achieves a level of security and integrity sufficient to accomplish the purpose of the standard it is to replace, and (2) the alternate standard, as approved, and the record upon which it is based. Some commenters stated that these two requirements are redundant and the “record upon which [the alternate standard] is based” will necessarily include the detailed statement.

*Response:* The Commission disagrees. The first requirement is a statement from the TGRA to the Commission about the standard as approved, while the second requirement is the standard itself and all of the documents and information the TGRA used in deciding whether to grant the alternate standard.

*Comment:* A few commenters asked for the standard be changed to clarify that the TGRA can implement the alternate standard as soon as it is approved by the TGRA.

*Response:* The Commission has amended § 547.17(a) to include the statement that a gaming operation may implement an alternate standard upon TGRA approval subject to the Chair’s decision pursuant to sub-section (b). The Commission believes that this language makes clear that an alternate standard may be implemented upon TGRA approval. To further alleviate any potential confusion regarding the alternate standard process, the Commission has also added language specifying that, if the Chair approves an alternate standard, the gaming operation may continue to operate accordingly. The rule now also specifies, however, that, if the Chair objects to the alternate standard, the gaming operation must cease using the alternate standard and must follow the applicable minimum technical standard.

Finally, this final rule clarifies that the TGRA may appeal the Chair’s decision to approve or object to an alternate standard pursuant to 25 CFR subchapter H. The Commission believes that, because the rule requires the TGRA to approve and submit the alternate standard for NIGC review, the TGRA should be the entity to appeal a Chair decision it disagrees with.

#### IV. Regulatory Matters

##### *Regulatory Flexibility Act*

The rule will not have a significant impact on a substantial number of small

entities as defined under the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.* Moreover, Indian tribes are not considered to be small entities for the purposes of the Regulatory Flexibility Act.

#### *Small Business Regulatory Enforcement Fairness Act*

The rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. The rule does not have an effect on the economy of \$100 million or more. The rule will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, local government agencies or geographic regions. Nor will the rule have a significant adverse effect on competition, employment, investment, productivity, innovation, or the ability of the enterprises, to compete with foreign based enterprises.

#### *Unfunded Mandate Reform Act*

The Commission, as an independent regulatory agency, is exempt from compliance with the Unfunded Mandates Reform Act, 2 U.S.C. 1502(1); 2 U.S.C. 658(1).

#### *Takings*

In accordance with Executive Order 12630, the Commission has determined that the rule does not have significant takings implications. A takings implication assessment is not required.

#### *Civil Justice Reform*

In accordance with Executive Order 12988, the Commission has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order.

#### *National Environmental Policy Act*

The Commission has determined that the rule does not constitute a major federal action significantly affecting the quality of the human environment and that no detailed statement is required pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321, *et seq.*

#### *Paperwork Reduction Act*

The information collection requirements contained in this rule were previously approved by the Office of Management and Budget (OMB) as required by 44 U.S.C. 3501 *et seq.* and assigned OMB Control Number 3141-0014 which expired. The NIGC is in the process of reinstating that Control Number. The final rule does not require any significant changes in information collection under the Paperwork

Reduction Act of 1995, 44 U.S.C. 3501 *et seq.*

#### **List of Subjects in 25 CFR Part 547**

Gambling, Indian—Indian lands, Indian—tribal government.

■ For the reasons set forth in the preamble, the NIGC revises 25 CFR part 547 as follows:

#### **PART 547—MINIMUM TECHNICAL STANDARDS FOR CLASS II GAMING SYSTEMS AND EQUIPMENT**

Sec.

- 547.1 What is the purpose of this part?
- 547.2 What are the definitions for this part?
- 547.3 Who is responsible for implementing these standards?
- 547.4 What are the rules of general application for this part?
- 547.5 How does a tribal government, TGRA, or tribal gaming operation comply with this part?
- 547.6 What are the minimum technical standards for enrolling and enabling Class II gaming system components?
- 547.7 What are the minimum technical hardware standards applicable to Class II gaming systems?
- 547.8 What are the minimum technical software standards applicable to Class II gaming systems?
- 547.9 What are the minimum technical standards for Class II gaming system accounting functions?
- 547.10 What are the minimum standards for Class II gaming system critical events?
- 547.11 What are the minimum technical standards for money and credit handling?
- 547.12 What are the minimum technical standards for downloading on a Class II gaming system?
- 547.13 What are the minimum technical standards for program storage media?
- 547.14 What are the minimum technical standards for electronic random number generation?
- 547.15 What are the minimum technical standards for electronic data communications between system components?
- 547.16 What are the minimum standards for game artwork, glass, and rules?
- 547.17 How does a TGRA apply to implement an alternate minimum standard to those required by this part?

**Authority:** 25 U.S.C. 2706(b).

#### **§ 547.1 What is the purpose of this part?**

The Indian Gaming Regulatory Act, 25 U.S.C. 2703(7)(A)(i), permits the use of electronic, computer, or other technologic aids in connection with the play of Class II games. This part establishes the minimum technical standards governing the use of such aids.

#### **§ 547.2 What are the definitions for this part?**

For the purposes of this part, the following definitions apply:

*Account access component.* A component within a Class II gaming system that reads or recognizes account access media and gives a patron the ability to interact with an account.

*Account access medium.* A magnetic stripe card or any other medium inserted into, or otherwise made to interact with, an account access component in order to give a patron the ability to interact with an account.

*Advertised top prize.* The highest single prize available based on information contained in the prize schedule and help screens.

*Agent.* A person authorized by the tribal gaming operation, as approved by the TGRA, to make decisions or to perform tasks or actions on behalf of the tribal gaming operation.

*Audit mode.* The mode in which it is possible to view Class II gaming system accounting functions and statistics and perform non-player-related functions.

*Cancel credit.* An action initiated by the Class II gaming system by which some or all of a player's credits are removed by an attendant and paid to the player.

*Cashless system.* A system that performs cashless transactions and maintains records of those cashless transactions.

*Cashless transaction.* A movement of funds electronically from one component to another.

*CD-ROM.* Compact Disc—Read Only Memory.

*Chair.* The Chair of the National Indian Gaming Commission.

*Class II gaming.* Class II gaming has the same meaning as defined in 25 U.S.C. 2703(7)(A).

*Class II gaming system.* All components, whether or not technologic aids in electronic, computer, mechanical, or other technologic form, that function together to aid the play of one or more Class II games, including accounting functions mandated by these regulations.

*Commission.* The National Indian Gaming Commission established by the Indian Gaming Regulatory Act, 25 U.S.C. 2701 *et seq.*

*Coupon.* A financial instrument of fixed wagering value that can only be used to acquire non-cashable credits through interaction with a voucher system. This does not include instruments such as printed advertising material that cannot be validated directly by a voucher system.

*Critical memory.* Memory locations storing data essential to the functionality of the Class II gaming system.

*DLL.* A Dynamic-Link Library file.

*Download package.* Approved data sent to a component of a Class II gaming

system for such purposes as changing the component software.

*DVD.* Digital Video Disk or Digital Versatile Disk.

*Electromagnetic interference.* The disruption of operation of an electronic device when it is in the vicinity of an electromagnetic field in the radio frequency spectrum that is caused by another electronic device.

*Electrostatic discharge.* A single event, rapid transfer of electrostatic charge between two objects, usually resulting when two objects at different potentials come into direct contact with each other.

*Enroll.* The process by which a Class II gaming system identifies and establishes communications with an additional system component to allow for live gaming activity to take place on that component.

*EPROM.* Erasable Programmable Read Only Memory—a non-volatile storage chip or device that may be filled with data and information, that, once written, is not modifiable, and that is retained even if there is no power applied to the system.

*Fault.* An event that, when detected by a Class II gaming system, causes a discontinuance of game play or other component functions.

*Financial instrument.* Any tangible item of value tendered in Class II game play, including, but not limited to, bills, coins, vouchers and coupons.

*Financial instrument acceptor.* Any component that accepts financial instruments, such as a bill validator.

*Financial instrument dispenser.* Any component that dispenses financial instruments, such as a ticket printer.

*Financial instrument storage component.* Any component that stores financial instruments, such as a drop box.

*Flash memory.* Non-volatile memory that retains its data when the power is turned off and that can be electronically erased and reprogrammed without being removed from the circuit board.

*Game software.* The operational program or programs that govern the play, display of results, and/or awarding of prizes or credits for Class II games.

*Gaming equipment.* All electronic, electro-mechanical, mechanical, or other physical components utilized in the play of Class II games.

*Hardware.* Gaming equipment.

*Interruption.* Any form of mis-operation, component failure, or interference to the Class II gaming equipment.

*Modification.* A revision to any hardware or software used in a Class II gaming system.

*Non-cashable credit.* Credits given by an operator to a patron; placed on a

Class II gaming system through a coupon, cashless transaction or other approved means; and capable of activating play but not being converted to cash.

*Patron.* A person who is a customer or guest of the tribal gaming operation and may interact with a Class II game. Also may be referred to as a “player”.

*Patron deposit account.* An account maintained on behalf of a patron, for the purpose of depositing and withdrawing cashable funds for the primary purpose of interacting with a gaming activity.

*Player interface.* Any component(s) of a Class II gaming system, including an electronic or technologic aid (not limited to terminals, player stations, handhelds, fixed units, etc.), that directly enables player interaction in a Class II game.

*Prize schedule.* The set of prizes available to players for achieving pre-designated patterns in a Class II game.

*Program storage media.* An electronic data storage component, such as a CD-ROM, EPROM, hard disk, or flash memory on which software is stored and from which software is read.

*Progressive prize.* A prize that increases by a selectable or predefined amount based on play of a Class II game.

*Random number generator (RNG).* A software module, hardware component or combination of these designed to produce outputs that are effectively random.

*Reflexive software.* Any software that has the ability to manipulate and/or replace a randomly generated outcome for the purpose of changing the results of a Class II game.

*Removable/rewritable storage media.* Program or data storage components that can be removed from gaming equipment and be written to, or rewritten by, the gaming equipment or by other equipment designed for that purpose.

*Server.* A computer that controls one or more applications or environments within a Class II gaming system.

*Test/diagnostics mode.* A mode on a component that allows various tests to be performed on the Class II gaming system hardware and software.

*Testing laboratory.* An organization recognized by a TGRA pursuant to § 547.5(f).

*TGRA.* Tribal gaming regulatory authority, which is the entity authorized by tribal law to regulate gaming conducted pursuant to the Indian Gaming Regulatory Act.

*Unenroll.* The process by which a Class II gaming system disconnects an enrolled system component, disallowing any live gaming activity to take place on that component.

*Voucher.* A financial instrument of fixed wagering value, usually paper, that can be used only to acquire an equivalent value of cashable credits or cash through interaction with a voucher system.

*Voucher system.* A component of the Class II gaming system that securely maintains records of vouchers and coupons; validates payment of vouchers; records successful or failed payments of vouchers and coupons; and controls the purging of expired vouchers and coupons.

#### **§ 547.3 Who is responsible for implementing these standards?**

(a) *Minimum standards.* These are minimum standards and a TGRA may establish and implement additional technical standards that do not conflict with the standards set out in this part.

(b) *No limitation of technology.* This part should not be interpreted to limit the use of technology or to preclude the use of technology not specifically referenced.

(c) *Only applicable standards apply.* Gaming equipment and software must meet all applicable requirements of this part. For example, if a Class II gaming system lacks the ability to print or accept vouchers, then any standards that govern vouchers do not apply. These standards do not apply to associated equipment such as voucher and kiosk systems.

(d) *State jurisdiction.* Nothing in this part should be construed to grant to a state jurisdiction over Class II gaming or to extend a state's jurisdiction over Class III gaming.

#### **§ 547.4 What are the rules of general application for this part?**

(a) *Fairness.* No Class II gaming system may cheat or mislead users. All prizes advertised must be available to win during the game. A test laboratory must calculate and/or verify the mathematical expectations of game play, where applicable, in accordance with the manufacturer stated submission. The results must be included in the test laboratory's report to the TGRA. At the request of the TGRA, the manufacturer must also submit the mathematical expectations of the game play to the TGRA.

(b) *Approved gaming equipment and software only.* All gaming equipment and software used with Class II gaming systems must be identical in all respects to a prototype reviewed and tested by a testing laboratory and approved for use by the TGRA pursuant to § 547.5(a) through (c).

(c) *Proper functioning.* All gaming equipment and software used with Class

II gaming systems must perform according to the manufacturer's design and operating specifications.

**§ 547.5 How does a tribal government, TGRA, or tribal gaming operation comply with this part?**

(a) *Grandfathered gaming systems:*

Any Class II gaming system manufactured before November 10, 2008, that is not already certified pursuant to this sub-section or compliant with paragraph (c) of this section may be made available for use at any tribal gaming operation if:

(1) The TGRA submits the Class II gaming system software that affects the play of the Class II game, together with the signature verification required by § 547.8(f) to a testing laboratory recognized pursuant to paragraph (f) of this section within 120 days after October 22, 2012;

(2) The testing laboratory tests the submission to the standards established by § 547.8(b), § 547.8(f), § 547.14, and any additional technical standards adopted by the TGRA;

(3) The testing laboratory provides the TGRA with a formal written report setting forth and certifying to the findings and conclusions of the test;

(4) The TGRA makes a finding, in the form of a certificate provided to the supplier or manufacturer of the Class II gaming system, that the Class II gaming system qualifies for grandfather status under the provisions of this section. A TGRA may make such a finding only upon receipt of a testing laboratory's report that the Class II gaming system is compliant with § 547.8(b), § 547.8(f), § 547.14, and any other technical standards adopted by the TGRA. If the TGRA does not issue the certificate, or if the testing laboratory finds that the Class II gaming system is not compliant with § 547.8(b), § 547.8(f), § 547.14, or any other technical standards adopted by the TGRA, then the gaming system must immediately be removed from play and not be utilized.

(5) The TGRA retains a copy of any testing laboratory's report so long as the Class II gaming system that is the subject of the report remains available to the public for play; and

(6) The TGRA retains a copy of any certificate of grandfather status so long as the Class II gaming system that is the subject of the certificate remains available to the public for play.

(b) *Grandfather provisions.* All Class II gaming systems manufactured on or before November 10, 2008, that have been certified pursuant to paragraph (a) of this section, are grandfathered Class II gaming systems for which the following provisions apply:

(1) Grandfathered Class II gaming systems may continue in operation for a period of ten years from November 10, 2008.

(2) Grandfathered Class II gaming systems may only be used as approved by the TGRA. The TGRA must transmit its notice of that approval, identifying the grandfathered Class II gaming system and its components, to the Commission.

(3) Remote communications may only be allowed if authorized by the TGRA.

(4) As permitted by the TGRA, individual hardware or software components of a grandfathered Class II gaming system may be repaired or replaced to ensure proper functioning, security, or integrity of the grandfathered Class II gaming system.

(5) All modifications that affect the play of a grandfathered Class II gaming system must be approved pursuant to paragraph (c) of this section, except for the following:

(i) Any software modifications that the TGRA finds will maintain or advance the Class II gaming system's overall compliance with this part or any applicable provisions of part 543 of this chapter, after receiving a new testing laboratory report that the modifications are compliant with the standards established by § 547.4(a), § 547.8(b), § 547.14, and any other standards adopted by the TGRA;

(ii) Any hardware modifications that the TGRA finds will maintain or advance the Class II gaming system's overall compliance with this part or any applicable provisions of part 543 of this chapter; and

(iii) Any other modification to the software of a grandfathered Class II gaming system that the TGRA finds will not detract from, compromise or prejudice:

(A) The proper functioning, security, or integrity of the Class II gaming system, and

(B) The gaming system's overall compliance with the requirements of this part or any applicable provisions of part 543 of this chapter.

(iv) No such modification may be implemented without the approval of the TGRA. The TGRA must maintain a record of the modification so long as the Class II gaming system that is the subject of the modification remains available to the public for play and must make the record available to the Commission upon request. The Commission will only make available for public review records or portions of records subject to release under the Freedom of Information Act, 5 U.S.C. 552; the Privacy Act of 1974, 5 U.S.C.

552a; or the Indian Gaming Regulatory Act, 25 U.S.C. 2716(a).

(6) The player interface must exhibit information consistent with § 547.7(d) and any other information required by the TGRA.

(7) If a grandfathered Class II gaming system is approved pursuant to paragraph (c) of this section, it ceases to be a grandfathered system and the restrictions of paragraph (a) and (b) of this section no longer apply.

(c) *Submission, testing, and approval—generally.* Except as provided in paragraphs (b) and (d) of this section, a TGRA may not permit the use of any Class II gaming system, or any associated cashless system or voucher system or any modification thereto, in a tribal gaming operation unless:

(1) The Class II gaming system, cashless system, voucher system, or modification thereto has been submitted to a testing laboratory;

(2) The testing laboratory tests the submission to the standards established by:

(i) This part;

(ii) Any applicable provisions of part 543 of this chapter that are testable by the testing laboratory; and

(iii) The TGRA;

(3) The testing laboratory provides a formal written report to the party making the submission, setting forth and certifying its findings and conclusions, and noting compliance with any standard established by the TGRA pursuant to paragraph (c)(2)(iii) of this section;

(4) The testing laboratory's written report confirms that the operation of a player interface prototype has been certified that it will not be compromised or affected by electrostatic discharge, liquid spills, electromagnetic interference, radio frequency interference, or any other tests required by the TGRA;

(5) Following receipt of the testing laboratory's report, the TGRA makes a finding that the Class II gaming system, cashless system, or voucher system conforms to the standards established by:

(i) This part;

(ii) Any applicable provisions of part 543 of this chapter that are testable by the testing laboratory; and

(iii) The TGRA.

(6) The TGRA retains a copy of the testing laboratory's report required by paragraph (c) of this section for as long as the Class II gaming system, cashless system, voucher system, or modification thereto that is the subject of the report remains available to the public for play in its tribal gaming operation.

(d) *Emergency hardware and software modifications.* (1) A TGRA, in its

discretion, may permit the modification of previously approved hardware or software to be made available for play without prior laboratory testing or review if the modified hardware or software is:

(i) Necessary to correct a problem affecting the fairness, security, or integrity of a game or accounting system or any cashless system, or voucher system; or

(ii) Unrelated to game play, an accounting system, a cashless system, or a voucher system.

(2) If a TGRA authorizes modified software or hardware to be made available for play or use without prior testing laboratory review, the TGRA must thereafter require the hardware or software manufacturer to:

(i) Immediately advise other users of the same hardware or software of the importance and availability of the update;

(ii) Immediately submit the new or modified hardware or software to a testing laboratory for testing and verification of compliance with this part and any applicable provisions of part 543 of this chapter that are testable by the testing laboratory; and

(iii) Immediately provide the TGRA with a software signature verification tool meeting the requirements of § 547.8(f) for any new or modified software.

(3) If a TGRA authorizes a software or hardware modification under this paragraph, it must maintain a record of the modification and a copy of the testing laboratory report so long as the Class II gaming system that is the subject of the modification remains available to the public for play and must make the record available to the Commission upon request. The Commission will only make available for public review records or portions of records subject to release under the Freedom of Information Act, 5 U.S.C. 552; the Privacy Act of 1974, 5 U.S.C. 552a; or the Indian Gaming Regulatory Act, 25 U.S.C. 2716(a).

(e) *Compliance by charitable gaming operations.* This part does not apply to charitable gaming operations, provided that:

(1) The tribal government determines that the organization sponsoring the gaming operation is a charitable organization;

(2) All proceeds of the charitable gaming operation are for the benefit of the charitable organization;

(3) The TGRA permits the charitable organization to be exempt from this part;

(4) The charitable gaming operation is operated wholly by the charitable

organization's employees or volunteers; and

(5) The annual gross gaming revenue of the charitable gaming operation does not exceed \$1,000,000.

(f) *Testing laboratories.* (1) A testing laboratory may provide the examination, testing, evaluating and reporting functions required by this section provided that:

(i) It demonstrates its integrity, independence and financial stability to the TGRA.

(ii) It demonstrates its technical skill and capability to the TGRA.

(iii) If the testing laboratory is owned or operated by, or affiliated with, a tribe, it must be independent from the manufacturer and gaming operator for whom it is providing the testing, evaluating, and reporting functions required by this section.

(iv) The TGRA:

(A) Makes a suitability determination of the testing laboratory based upon standards no less stringent than those set out in § 533.6(b)(1)(ii) through (v) of this chapter and based upon no less information than that required by § 537.1 of this chapter, or

(B) Accepts, in its discretion, a determination of suitability for the testing laboratory made by any other gaming regulatory authority in the United States.

(v) After reviewing the suitability determination and the information provided by the testing laboratory, the TGRA determines that the testing laboratory is qualified to test and evaluate Class II gaming systems.

(2) The TGRA must:

(i) Maintain a record of all determinations made pursuant to paragraphs (f)(1)(iii) and (f)(1)(iv) of this section for a minimum of three years and must make the records available to the Commission upon request. The Commission will only make available for public review records or portions of records subject to release under the Freedom of Information Act, 5 U.S.C. 552; the Privacy Act of 1974, 5 U.S.C. 552a; or the Indian Gaming Regulatory Act, 25 U.S.C. 2716(a).

(ii) Place the testing laboratory under a continuing obligation to notify it of any adverse regulatory action in any jurisdiction where the testing laboratory conducts business.

(iii) Require the testing laboratory to provide notice of any material changes to the information provided to the TGRA.

#### **§ 547.6 What are the minimum technical standards for enrolling and enabling Class II gaming system components?**

(a) *General requirements.* Class II gaming systems must provide a method to:

(1) Enroll and unenroll Class II gaming system components;

(2) Enable and disable specific Class II gaming system components.

(b) *Specific requirements.* Class II gaming systems must:

(1) Ensure that only enrolled and enabled Class II gaming system

components participate in gaming; and

(2) Ensure that the default condition for components must be unenrolled and disabled.

#### **§ 547.7 What are the minimum technical hardware standards applicable to Class II gaming systems?**

(a) *Printed circuit boards.* (1) Printed circuit boards that have the potential to affect the outcome or integrity of the game, and are specially manufactured or proprietary and not off-the-shelf, must display a unique identifier such as a part number and/or revision number, which must be updated to reflect new revisions or modifications of the board.

(2) Switches or jumpers on all circuit boards that have the potential to affect the outcome or integrity of any game, progressive award, financial instrument, cashless transaction, voucher transaction, or accounting records must be capable of being sealed.

(b) *Electrostatic discharge.* Class II gaming system components accessible to the public must be constructed so that they exhibit immunity to human body electrostatic discharges on areas exposed to contact. Static discharges of  $\pm 15$  kV for air discharges and  $\pm 7.5$  kV for contact discharges must not cause damage or inhibit operation or integrity of the Class II gaming system.

(c) *Physical enclosures.* Physical enclosures must be of a robust construction designed to resist determined illegal entry. All protuberances and attachments such as buttons, identification plates, and labels must be sufficiently robust to avoid unauthorized removal.

(d) *Player interface.* The player interface must exhibit a serial number and date of manufacture and include a method or means to:

(1) Display information to a player; and

(2) Allow the player to interact with the Class II gaming system.

(e) *Account access components.* A Class II gaming system component that reads account access media must be located within a secure and locked area, cabinet, or housing that is of a robust

construction designed to resist determined illegal entry and to protect internal components. In addition, the account access component:

(1) Must be constructed so that physical tampering leaves evidence of such tampering; and

(2) Must provide a method to enable the Class II gaming system to interpret and act upon valid or invalid input or error condition.

(f) *Financial instrument storage components.* Any financial instrument storage components managed by Class II gaming system software must be located within a secure and locked area, cabinet, or housing that is of a robust construction designed to resist determined illegal entry and to protect internal components.

(g) *Financial instrument acceptors.* (1) Any Class II gaming system components that handle financial instruments and that are not operated under the direct control of an agent must:

(i) Be located within a secure and locked area, cabinet, or housing that is of a robust construction designed to resist determined illegal entry and to protect internal components;

(ii) Be able to detect the entry of valid or invalid financial instruments and to provide a method to enable the Class II gaming system to interpret and act upon valid or invalid input or error condition; and

(iii) Be constructed to permit communication with the Class II gaming system of the accounting information required by § 547.9(a) and by applicable provisions of any Commission and TGRA regulations governing minimum internal control standards.

(2) Prior to completion of a valid financial instrument transaction by the Class II gaming system, no monetary amount related to that instrument may be available for play. For example, credits may not be available for play until a financial instrument inserted into an acceptor is secured in the storage component.

(3) The monetary amount related to all valid financial instrument transactions by the Class II gaming system must be recorded as required by § 547.9(a) and the applicable provisions of any Commission and TGRA regulations governing minimum internal control standards.

(h) *Financial instrument dispensers.* (1) Any Class II gaming system components that dispense financial instruments and that are not operated under the direct control of a tribal gaming operation agent must:

(i) Be located within a secure, locked and tamper-evident area or in a locked cabinet or housing that is of a robust

construction designed to resist determined illegal entry and to protect internal components;

(ii) Provide a method to enable the Class II gaming system to interpret and act upon valid or invalid input or error condition; and

(iii) Be constructed to permit communication with the Class II gaming system of the accounting information required by § 547.9(a) and by applicable provisions of any Commission and TGRA regulations governing minimum internal control standards.

(2) The monetary amount related to all valid financial instrument transactions by the Class II gaming system must be recorded as required by § 547.9(a), the applicable provisions of part 543 of this chapter, and any TGRA regulations governing minimum internal control standards.

(i) *Game Outcome Determination Components.* Any Class II gaming system logic components that affect the game outcome and that are not operated under the direct control of a tribal gaming operation agent must be located within a secure, locked and tamper-evident area or in a locked cabinet or housing that is of a robust construction designed to resist determined illegal entry and to protect internal components. DIP switches or jumpers that can affect the integrity of the Class II gaming system must be capable of being sealed by the TGRA.

(j) *Door access detection.* All components of the Class II gaming system that are locked in order to meet the requirements of this part must include a sensor or other methods to monitor an open door. A door open sensor, and its components or cables, must be secure against attempts to disable them or interfere with their normal mode of operation.

(k) *Separation of functions/no limitations on technology.* Nothing herein prohibits the account access component, financial instrument storage component, financial instrument acceptor, and financial instrument dispenser from being included within the same component or being separated into individual components.

#### **§ 547.8 What are the minimum technical software standards applicable to Class II gaming systems?**

(a) *Player interface displays.* (1) If not otherwise provided to the player, the player interface must display the following:

- (i) The purchase or wager amount;
- (ii) Game results; and
- (iii) Any player credit balance.

(2) Between plays of any game and until the start of the next play, or until

the player selects a new game option such as purchase or wager amount or card selection, whichever is earlier, if not otherwise provided to the player, the player interface must display:

(i) The total purchase or wager amount and all prizes and total credits won for the last game played;

(ii) The final results for the last game played; and

(iii) Any default purchase or wager amount for the next play.

(b) *Game initiation and play.* (1) Each game played on the Class II gaming system must follow and not deviate from a constant set of rules for each game provided to players pursuant to § 547.16. There must be no undisclosed changes of rules.

(2) The Class II gaming system may not alter or allow to be altered the card permutations used for play of a Class II game unless specifically chosen by the player prior to commitment to participate in the game. No duplicate cards may be sold for any common draw.

(3) No game play may commence, and no financial instrument or credit may be accepted on the affected player interface, in the presence of any fault condition that affects the outcome of the game, or while in test, audit, or lock-up mode.

(4) Each player must initiate his or her participation in the play of a game.

(c) *Audit mode.* (1) If an audit mode is provided, the Class II gaming system must, for those components actively involved in the audit:

(i) Provide all accounting functions required by § 547.9, by applicable provisions of any Commission regulations governing minimum internal control standards, and by any internal controls adopted by the tribe or TGRA;

(ii) Display player interface identification; and

(iii) Display software version or game identification.

(2) Audit mode must be accessible by a secure method such as an agent PIN, key, or other auditable access control.

(3) Accounting function data must be accessible by an agent at any time, except during a payout, during a handpay, or during play.

(4) The Class II gaming system must disable financial instrument acceptance on the affected player interface while in audit mode, except during financial instrument acceptance testing.

(d) *Last game recall.* The last game recall function must:

(1) Be retrievable at all times, other than when the recall component is involved in the play of a game, upon the operation of an external key-switch, entry of an audit card, or a similar method;

(2) Display the results of recalled games as originally displayed or in text representation so as to enable the TGRA or operator to clearly identify the sequences and results that occurred;

(3) Allow the Class II gaming system component providing game recall, upon return to normal game play mode, to restore any affected display to the positions, forms and values displayed before access to the game recall information; and

(4) Provide the following information for the current and previous four games played and must display:

(i) Play start time, end time, and date;

(ii) The total number of credits at the start of play;

(iii) The purchase or wager amount;

(iv) The total number of credits at the end of play;

(v) The total number of credits won as a result of the game recalled, and the value in dollars and cents for progressive prizes, if different;

(vi) For bingo games and games similar to bingo, also display:

(A) The card(s) used by the player;

(B) The identifier of the bingo game played;

(C) The numbers or other designations drawn, in the order that they were drawn;

(D) The numbers or other designations and prize patterns covered on each card;

(E) All prizes won by the player, including winning patterns, if any; and

(F) The unique identifier of the card on which prizes were won;

(vii) For pull-tab games only, also display:

(A) The result(s) of each pull-tab, displayed in the same pattern as on the tangible pull-tab;

(B) All prizes won by the player;

(C) The unique identifier of each pull tab; and

(D) Any other information necessary to fully reconstruct the current and four previous plays.

(e) *Voucher and credit transfer recall.*

Notwithstanding the requirements of any other section in this part, a Class II gaming system must have the capacity to:

(1) Display the information specified in § 547.11(b)(5)(ii) through (vi) for the last five vouchers or coupons printed and the last five vouchers or coupons accepted; and

(2) Display a complete transaction history for the last five cashless transactions made and the last five cashless transactions accepted.

(f) *Software signature verification.*

The manufacturer or developer of the Class II gaming system must provide to the testing laboratory and to the TGRA an industry-standard methodology,

acceptable to the TGRA, for verifying the Class II gaming system game software. For example, for game software stored on rewritable media, such methodologies include signature algorithms and hashing formulas such as SHA-1.

(g) *Test, diagnostic, and demonstration modes.* If test, diagnostic, and/or demonstration modes are provided, the Class II gaming system must, for those components actively involved in the test, diagnostic, or demonstration mode:

(1) Clearly indicate when that component is in the test, diagnostic, or demonstration mode;

(2) Not alter financial data on that component other than temporary data;

(3) Only be available after entering a specific mode;

(4) Disable credit acceptance and payment unless credit acceptance or payment is being tested; and

(5) Terminate all mode-specific functions upon exiting a mode.

(h) *Multigame.* If multiple games are offered for player selection at the player interface, the player interface must:

(1) Provide a display of available games;

(2) Provide the means of selecting among them;

(3) Display the full amount of the player's credit balance;

(4) Identify the game selected or being played; and

(5) Not force the play of a game after its selection.

(i) *Program interruption and resumption.* The Class II gaming system software must be designed so that upon resumption following any interruption, the system:

(1) Is able to return to a known state;

(2) Must check for any fault condition;

(3) Must verify the integrity of data stored in critical memory;

(4) Must return the purchase or wager amount to the player in accordance with the rules of the game; and

(5) Must detect any change or corruption in the Class II gaming system software.

(j) *Class II gaming system components acting as progressive controllers.* This paragraph applies to progressive controllers and components acting as progressive controllers in Class II gaming systems.

(1) Modification of progressive parameters must be conducted in a secure manner approved by the TGRA.

Such parameters may include:

(i) Increment value;

(ii) Secondary pool increment(s);

(iii) Reset amount(s);

(iv) Maximum value(s); and

(v) Identity of participating player interfaces.

(2) The Class II gaming system component or other progressive controller must provide a means of creating a progressive balancing report for each progressive link it controls. At a minimum, that report must provide balancing of the changes of the progressive amount, including progressive prizes won, for all participating player interfaces versus current progressive amount(s), plus progressive prizes. In addition, the report must account for, and not be made inaccurate by, unusual events such as:

(i) Class II gaming system critical memory clears;

(ii) Modification, alteration, or deletion of progressive prizes;

(iii) Offline equipment; or

(iv) Multiple site progressive prizes.

(k) *Critical memory.* (1) Critical memory may be located anywhere within the Class II gaming system. Critical memory is any memory that maintains any of the following data:

(i) Accounting data;

(ii) Current credits;

(iii) Configuration data;

(iv) Last game play recall information required by paragraph (d) of this section;

(v) Game play recall information for the current game play, if incomplete;

(vi) Software state (the last normal state software was in before interruption);

(vii) RNG seed(s), if necessary for maintaining integrity;

(viii) Encryption keys, if necessary for maintaining integrity;

(ix) Progressive prize parameters and current values;

(x) The five most recent financial instruments accepted by type, excluding coins and tokens;

(xi) The five most recent financial instruments dispensed by type, excluding coins and tokens; and

(xii) The five most recent cashless transactions paid and the five most recent cashless transactions accepted.

(2) Critical memory must be maintained using a methodology that enables errors to be identified and acted upon. All accounting and recall functions must be verified as necessary to ensure their ongoing integrity.

(3) The validity of affected data stored in critical memory must be checked after each of the following events:

(i) Every restart;

(ii) Each attendant paid win;

(iii) Each attendant paid progressive win;

(iv) Each sensed door closure; and

(v) Every reconfiguration, download, or change of prize schedule or denomination requiring operator intervention or action.

(l) *Secured access.* Class II gaming systems that use a logon or other means of secured access must include a user account lockout after a predetermined number of consecutive failed attempts to access the Class II gaming system.

**§ 547.9 What are the minimum technical standards for Class II gaming system accounting functions?**

(a) *Required accounting data.* The following minimum accounting data, however named, must be maintained by the Class II gaming system:

(1) Amount In: The total value of all financial instruments and cashless transactions accepted by the Class II gaming system. Each type of financial instrument accepted by the Class II gaming system must be tracked independently per financial instrument acceptor, and as required by applicable requirements of TGRA regulations that meet or exceed the minimum internal control standards at 25 CFR part 543.

(2) Amount Out: The total value of all financial instruments and cashless transactions paid by the Class II gaming system, plus the total value of attendant pay. Each type of financial instrument paid by the Class II Gaming System must be tracked independently per

financial instrument dispenser, and as required by applicable requirements of TGRA regulations that meet or exceed the minimum internal control standards at 25 CFR part 543.

(b) *Accounting data storage.* If the Class II gaming system electronically maintains accounting data:

(1) Accounting data must be stored with at least eight decimal digits.

(2) Credit balances must have sufficient digits to accommodate the design of the game.

(3) Accounting data displayed to the player may be incremented or decremented using visual effects, but the internal storage of this data must be immediately updated in full.

(4) Accounting data must be updated upon the occurrence of the relevant accounting event.

(5) Modifications to accounting data must be recorded, including the identity of the person(s) making the modifications, and be reportable by the Class II gaming system.

(c) *Rollover.* Accounting data that rolls over to zero must not corrupt data.

(d) *Credit balance display and function.* (1) Any credit balance maintained at the player interface must

be prominently displayed at all times except:

(i) In audit, configuration, recall and test modes; or

(ii) Temporarily, during entertaining displays of game results.

(2) Progressive prizes may be added to the player's credit balance provided that:

(i) The player credit balance is maintained in dollars and cents;

(ii) The progressive accounting data is incremented in number of credits; or

(iii) The prize in dollars and cents is converted to player credits or transferred to the player's credit balance in a manner that does not mislead the player or cause accounting imbalances.

(3) If the player credit balance displays in credits, but the actual balance includes fractional credits, the Class II gaming system must display the fractional credit when the player credit balance drops below one credit.

**§ 547.10 What are the minimum standards for Class II gaming system critical events?**

(a) *Fault events.* (1) The following are fault events that must be capable of being recorded by the Class II gaming system:

| Event  | Definition and action to be taken  |
|--|--|
| (i) Component fault .....                    | Reported when a fault on a component is detected. When possible, this event message should indicate what the nature of the fault is.   |
| (ii) Financial storage component full .....  | Reported when a financial instrument acceptor or dispenser includes storage, and it becomes full. This event message must indicate what financial storage component is full.   |
| (iii) Financial output component empty ..... | Reported when a financial instrument dispenser is empty. The event message must indicate which financial output component is affected, and whether it is empty.  |
| (iv) Financial component fault .....         | Reported when an occurrence on a financial component results in a known fault state.   |
| (v) Critical memory error .....              | Some critical memory error has occurred. When a non-correctable critical memory error has occurred, the data on the Class II gaming system component can no longer be considered reliable. Accordingly, any game play on the affected component must cease immediately, and an appropriate message must be displayed, if possible. |
| (vi) Progressive communication fault .....   | If applicable; when communications with a progressive controller component is in a known fault state.  |
| (vii) Program storage medium fault .....     | The software has failed its own internal security check or the medium itself has some fault. Any game play on the affected component must cease immediately, and an appropriate message must be displayed, if possible.  |

(2) The occurrence of any event identified in paragraph (a)(1) of this section must be recorded.

(3) Upon clearing any event identified in paragraph (a)(1) of this section, the Class II gaming system must:

(i) Record that the fault condition has been cleared;

(ii) Ensure the integrity of all related accounting data; and

(iii) In the case of a malfunction, return a player's purchase or wager according to the rules of the game.

(b) *Door open/close events.* (1) In addition to the requirements of paragraph (a)(1) of this section, the Class II gaming system must perform the following for any component affected by any sensed door open event:

(i) Indicate that the state of a sensed door changes from closed to open or opened to closed;

(ii) Disable all financial instrument acceptance, unless a test mode is entered;

(iii) Disable game play on the affected player interface;

(iv) Disable player inputs on the affected player interface, unless test mode is entered; and

(v) Disable all financial instrument disbursement, unless a test mode is entered.

(2) The Class II gaming system may return the component to a ready to play state when all sensed doors are closed.

(c) *Non-fault events.* The following non-fault events are to be acted upon as described below, if applicable:

| Event   | Definition   |
|---|--|
| (1) Player interface off during play .....                            | Indicates power has been lost during game play. This condition must be reported by the affected component(s).                                  |
| (2) Player interface power on .....                                   | Indicates the player interface has been turned on. This condition must be reported by the affected component(s).                               |
| (3) Financial instrument storage component container/stacker removed. | Indicates that a financial instrument storage container has been removed. The event message must indicate which storage container was removed. |

**§ 547.11 What are the minimum technical standards for money and credit handling?**

(a) *Credit acceptance, generally.* (1) Upon any credit acceptance, the Class II gaming system must register the correct number of credits on the player's credit balance.

(2) The Class II gaming system must reject financial instruments deemed invalid.

(b) *Credit redemption, generally.* (1) For cashable credits on a player interface, players must be allowed to cash out and/or redeem those credits at the player interface except when that player interface is:

- (i) Involved in the play of a game;
- (ii) In audit mode, recall mode or any test mode;
- (iii) Detecting any sensed door open condition;
- (iv) Updating the player credit balance or total win accounting data; or
- (v) Displaying a fault condition that would prevent cash-out or credit redemption. In this case a fault indication must be displayed.

(2) For cashable credits not on a player interface, the player must be allowed to cash out and/or redeem those credits at any time.

(3) A Class II gaming system must not automatically pay an award subject to mandatory tax reporting or withholding.

(4) Credit redemption by voucher or coupon must conform to the following:

(i) A Class II gaming system may redeem credits by issuing a voucher or coupon when it communicates with a voucher system that validates the voucher or coupon.

(ii) A Class II gaming system that redeems credits by issuing vouchers and coupons must either:

(A) Maintain an electronic record of all information required by paragraphs (b)(5)(ii) through (vi) of this section; or

(B) Generate two identical copies of each voucher or coupon issued, one to be provided to the player and the other to be retained within the electronic player interface for audit purposes.

(5) Valid vouchers and coupons from a voucher system must contain the following:

- (i) Tribal gaming operation name and location;
- (ii) The identification number of the Class II gaming system component or

the player interface number, as applicable;

- (iii) Date and time of issuance;
- (iv) Alpha and numeric dollar amount;
- (v) A sequence number;
- (vi) A validation number that:
  - (A) Is produced by a means specifically designed to prevent repetition of validation numbers; and
  - (B) Has some form of checkcode or other form of information redundancy to prevent prediction of subsequent validation numbers without knowledge of the checkcode algorithm and parameters;
  - (vii) For machine-readable vouchers and coupons, a bar code or other form of machine readable representation of the validation number, which must have enough redundancy and error checking to ensure that 99.9% of all misreads are flagged as errors;
  - (viii) Transaction type or other method of differentiating voucher and coupon types; and
  - (ix) Expiration period or date.

(6) Transfers from an account may not exceed the balance of that account.

(7) For Class II gaming systems not using dollars and cents accounting and not having odd cents accounting, the Class II gaming system must reject any transfers from voucher systems or cashless systems that are not even multiples of the Class II gaming system denomination.

(8) Voucher systems must include the ability to report redemptions per redemption location or user.

**§ 547.12 What are the minimum technical standards for downloading on a Class II gaming system?**

(a) *Downloads.* (1) Downloads are an acceptable means of transporting approved content, including, but not limited to software, files, data, and prize schedules.

(2) Downloads must use secure methodologies that will deliver the download data without alteration or modification, in accordance with § 547.15(a).

(3) Downloads conducted during operational periods must be performed in a manner that will not affect game play.

(4) Downloads must not affect the integrity of accounting data.

(5) The Class II gaming system must be capable of providing:

- (i) The time and date of the initiation of the download;
- (ii) The time and date of the completion of the download;
- (iii) The Class II gaming system components to which software was downloaded;
- (iv) The version(s) of download package and any software downloaded. Logging of the unique software signature will satisfy this requirement;
- (v) The outcome of any software verification following the download (success or failure); and
- (vi) The name and identification number, or other unique identifier, of any individual(s) conducting or scheduling a download.

(b) *Verifying downloads.* Downloaded software on a Class II gaming system must be capable of being verified by the Class II gaming system using a software signature verification method that meets the requirements of § 547.8(f).

**§ 547.13 What are the minimum technical standards for program storage media?**

(a) *Removable program storage media.* All removable program storage media must maintain an internal checksum or signature of its contents. Verification of this checksum or signature is to be performed after every restart. If the verification fails, the affected Class II gaming system component(s) must lock up and enter a fault state.

(b) *Nonrewritable program storage media.* (1) All EPROMs and Programmable Logic Devices that have erasure windows must be fitted with covers over their erasure windows.

(2) All unused areas of EPROMs must be written with the inverse of the erased state (zero bits (00 hex) for most EPROMs), random data, or repeats of the program data.

(3) Flash memory storage components intended to have the same logical function as ROM, must be write-protected or otherwise protected from unauthorized modification.

(4) The write cycle must be closed or finished for all CD-ROMs such that it is not possible to write any further data to the CD.

(5) Write protected hard disks are permitted if the hardware means of

enabling the write protect is easily viewable and can be sealed in place. Write protected hard disks are permitted using software write protection verifiable by a testing laboratory.

(c) *Writable and rewritable program storage media.* (1) Writable and rewritable program storage, such as hard disk drives, Flash memory, writable CD-ROMs, and writable DVDs, may be used provided that the software stored thereon may be verified using the mechanism provided pursuant to § 547.8(f).

(2) Program storage must be structured so there is a verifiable separation of fixed data (such as program, fixed parameters, DLLs) and variable data.

(d) *Identification of program storage media.* All program storage media that is not rewritable in circuit, (EPROM, CD-ROM) must be uniquely identified, displaying:

- (1) Manufacturer;
- (2) Program identifier;
- (3) Program version number(s); and
- (4) Location information, if critical (socket position 3 on the printed circuit board).

**§ 547.14 What are the minimum technical standards for electronic random number generation?**

(a) *Properties.* All RNGs must produce output having the following properties:

- (1) Statistical randomness;
- (2) Unpredictability; and
- (3) Non-repeatability.

(b) *Statistical randomness.* (1) Numbers or other designations produced by an RNG must be statistically random individually and in the permutations and combinations used in the application under the rules of the game. For example, if a bingo game with 75 objects with numbers or other designations has a progressive winning pattern of the five numbers or other designations on the bottom of the card, and the winning of this prize is defined to be the five numbers or other designations that are matched in the first five objects drawn, the likelihood of each of the 75C5 combinations are to be verified to be statistically equal.

(2) Numbers or other designations produced by an RNG must pass the statistical tests for randomness to a 99% confidence level, which may include:

- (i) Chi-square test;
- (ii) Runs test (patterns of occurrences must not be recurrent); and
- (iii) Serial correlation test potency and degree of serial correlation (outcomes must be independent from the previous game).
- (iv) Equi-distribution (frequency) test;
- (v) Gap test;

- (vi) Poker test;
- (vii) Coupon collector's test;
- (viii) Permutation test;
- (ix) Spectral test; or
- (x) Test on subsequences.

(c) *Unpredictability.* (1) It must not be feasible to predict future outputs of an RNG, even if the algorithm and the past sequence of outputs are known.

(2) Unpredictability must be ensured by reseeding or by continuously cycling the RNG, and by providing a sufficient number of RNG states for the applications supported.

(3) Re-seeding may be used where the re-seeding input is at least as statistically random as, and independent of, the output of the RNG being re-seeded.

(d) *Non-repeatability.* The RNG may not be initialized to reproduce the same output stream that it has produced before, nor may any two instances of an RNG produce the same stream as each other. This property must be ensured by initial seeding that comes from:

- (1) A source of "true" randomness, such as a hardware random noise generator; or
- (2) A combination of timestamps, parameters unique to a Class II gaming system, previous RNG outputs, or other, similar method.

(e) *General requirements.* (1) Software that calls an RNG to derive game outcome events must immediately use the output returned in accordance with the game rules.

(2) The use of multiple RNGs is permitted as long as they operate in accordance with this section.

(3) RNG outputs must not be arbitrarily discarded or selected.

(4) Where a sequence of outputs is required, the whole of the sequence in the order generated must be used in accordance with the game rules.

(5) The Class II gaming system must neither adjust the RNG process or game outcomes based on the history of prizes obtained in previous games nor use any reflexive software or secondary decision that affects the results shown to the player or game outcome.

(f) *Scaling algorithms and scaled numbers.* An RNG that provides output scaled to given ranges must:

- (1) Be independent and uniform over the range;
- (2) Provide numbers scaled to the ranges required by game rules, and notwithstanding the requirements of paragraph (e)(3) of this section, may discard numbers that do not map uniformly onto the required range but must use the first number in sequence that does map correctly to the range;
- (3) Be capable of producing every possible outcome of a game according to its rules; and

(4) Use an unbiased algorithm. A scaling algorithm is considered to be unbiased if the measured bias is no greater than 1 in 50 million.

**§ 547.15 What are the minimum technical standards for electronic data communications between system components?**

(a) *Sensitive data.* Communication of sensitive data must be secure from eavesdropping, access, tampering, intrusion or alteration unauthorized by the TGRA. Sensitive data includes, but is not limited to:

- (1) RNG seeds and outcomes;
- (2) Encryption keys, where the implementation chosen requires transmission of keys;
- (3) PINs;
- (4) Passwords;
- (5) Financial instrument transactions;
- (6) Transfers of funds;
- (7) Player tracking information;
- (8) Download Packages; and
- (9) Any information that affects game outcome.

(b) *Wireless communications.* (1) Wireless access points must not be accessible to the general public.

(2) Open or unsecured wireless communications are prohibited.

(3) Wireless communications must be secured using a methodology that makes eavesdropping, access, tampering, intrusion or alteration impractical. By way of illustration, such methodologies include encryption, frequency hopping, and code division multiplex access (as in cell phone technology).

(c) Methodologies must be used that will ensure the reliable transfer of data and provide a reasonable ability to detect and act upon any corruption of the data.

(d) Class II gaming systems must record detectable, unauthorized access or intrusion attempts.

(e) Remote communications may only be allowed if authorized by the TGRA. Class II gaming systems must have the ability to enable or disable remote access, and the default state must be set to disabled.

(f) Failure of data communications must not affect the integrity of critical memory.

(g) The Class II gaming system must log the establishment, loss, and re-establishment of data communications between sensitive Class II gaming system components.

**§ 547.16 What are the minimum standards for game artwork, glass, and rules?**

(a) *Rules, instructions, and prize schedules, generally.* The following must at all times be displayed or made readily available to the player upon request:

(1) Game name, rules, and options such as the purchase or wager amount stated clearly and unambiguously;

(2) Denomination;

(3) Instructions for play on, and use of, the player interface, including the functions of all buttons; and

(4) A prize schedule or other explanation, sufficient to allow a player to determine the correctness of all prizes awarded, including:

(i) The range and values obtainable for any variable prize;

(ii) Whether the value of a prize depends on the purchase or wager amount; and

(iii) The means of division of any pari-mutuel prizes; but

(iv) For Class II Gaming Systems, the prize schedule or other explanation need not state that subsets of winning patterns are not awarded as additional prizes (for example, five in a row does not also pay three in a row or four in a row), unless there are exceptions, which must be clearly stated.

(b) *Disclaimers.* The Player Interface must continually display:

(1) “Malfunctions void all prizes and plays” or equivalent; and

(2) “Actual Prizes Determined by Bingo (or other applicable Class II game) Play. Other Displays for Entertainment Only” or equivalent.

(c) *Odds notification.* If the odds of winning any advertised top prize exceeds 100 million to one, the Player Interface must display: “Odds of winning the advertised top prize exceeds 100 million to one” or equivalent.

**§ 547.17 How does a TGRA apply to implement an alternate minimum standard to those required by this part?**

(a) *TGRA approval.* (1) A TGRA may approve an alternate standard from those required by this part if it has determined that the alternate standard will achieve a level of security and integrity sufficient to accomplish the purpose of the standard it is to replace. A gaming operation may implement an alternate standard upon TGRA approval subject to the Chair’s decision pursuant to paragraph (b) of this section.

(2) For each enumerated standard for which the TGRA approves an alternate standard, it must submit to the Chair within 30 days a detailed report, which must include the following:

(i) An explanation of how the alternate standard achieves a level of security and integrity sufficient to accomplish the purpose of the standard it is to replace; and

(ii) The alternate standard as approved and the record on which the approval is based.

(3) In the event that the TGRA or the tribe’s government chooses to submit an alternate standard request directly to the Chair for joint government to government review, the TGRA or tribal government may do so without the approval requirement set forth in paragraph (a)(1) of this section.

(b) *Chair review.* (1) The Chair may approve or object to an alternate standard approved by a TGRA.

(2) If the Chair approves the alternate standard, the Tribe may continue to use it as authorized by the TGRA.

(3) If the Chair objects to the alternate standard, the operation may no longer use the alternate standard and must follow the relevant technical standard set forth in this part.

(4) Any objection by the Chair must be in written form with an explanation why the alternate standard as approved by the TGRA does not provide a level of security or integrity sufficient to accomplish the purpose of the standard it is to replace.

(5) If the Chair fails to approve or object in writing within 60 days after the date of receipt of a complete submission, the alternate standard is considered approved by the Chair. The Chair may, upon notification to the TGRA, extend this deadline an additional 60 days.

(c) *Appeal of Chair decision.* A TGRA may appeal the Chair’s decision pursuant to 25 CFR chapter III, subchapter H.

Dated: September 14, 2012, Washington, DC.

**Tracie L. Stevens,**

*Chairwoman.*

**Steffani A. Cochran,**

*Vice-Chairwoman.*

**Daniel J. Little,**

*Commissioner.*

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**DEPARTMENT OF LABOR**

**Occupational Safety and Health Administration**

**29 CFR Part 1952**

**[Docket ID. OSHA 2012–0029]**

**RIN 1218–AC78**

**Hawaii State Plan for Occupational Safety and Health**

**AGENCY:** Occupational Safety and Health Administration, Department of Labor.

**ACTION:** Final rule.

**SUMMARY:** This document announces the Occupational Safety and Health

Administration’s (OSHA) decision to modify the Hawaii State Plan’s “final approval” determination under Section 18(e) of the Occupational Safety and Health Act (the Act) and to transition to “initial approval” status. OSHA is reinstating concurrent federal enforcement authority over occupational safety and health issues in the private sector, which have been solely covered by the Hawaii State Plan since 1984.

**DATES:** Effective September 21, 2012.

**FOR FURTHER INFORMATION CONTACT:**

*For press inquiries:* Francis Meilinger, OSHA Office of Communications, Room N–3647, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, DC 20210; telephone (202) 693–1999; email: *meilinger.francis2@dol.gov*.

*For general and technical information:* Douglas J. Kalinowski, Director, OSHA Directorate of Cooperative and State Programs, Room N–3700, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, DC 20210; telephone: (202) 693–2200; email: *kalinowski.doug@dol.gov*.

**SUPPLEMENTARY INFORMATION:**

**Background**

Hawaii administers an OSHA-approved state plan to develop and enforce occupational safety and health standards for public and private sector employers, pursuant to the provisions of Section 18 of the Act. The Hawaii State Plan received initial federal OSHA plan approval on December 28, 1973 (39 FR 1010) and the Hawaii Occupational Safety and Health Division (HIOSH) of the Hawaii Department of Labor and Industrial Relations is designated as the state agency responsible for administering the state plan. Pursuant to Section 18(e) of the Act, OSHA granted Hawaii “final approval” effective April 30, 1984 (49 FR 19182). Final approval under Section 18(e) requires, among other things, a finding by the Assistant Secretary that the plan, in actual operation, provides worker protection “at least as effective as” that provided by federal OSHA. A final approval determination results in the relinquishment of federal concurrent enforcement authority in the state with respect to occupational safety and health issues covered by the plan. 29 U.S.C. 667(e).

During the past three years, the Hawaii State Plan has faced major budgetary and staffing restraints that have significantly affected its program. Impacts on the state plan are clearly reflected throughout OSHA’s recent monitoring reports. Joint efforts were made by federal OSHA and HIOSH to