

SUGGESTIONS ON NERC CLASS II TECHNICAL STANDARDS

Technical Standards for "Electronic,
Computer, or Other Technologic Aids" Used in
the Play of Class II Games; 25 CFR Part 170;
Proposed Rule, August 11, 2006

September 29, 2006



Gaming Laboratories International, Inc.
600 Airport Blvd.
Lakewood, New Jersey 07046
Telephone: 732-942-1395
Fax: 732-942-1396
www.gaminglabs.com

OVERVIEW

Gaming Laboratories International, Inc.(GLI) has reviewed Class II technical standards dated August 11, 2006 and respectfully submit the following comments and suggestions. We provided a comprehensive listing of the specific points for each of our concerns.

Our suggestions will be divided into five distinct parts:

- a) Section I - Suggested modifications to wording of definitions or other minor text changes to help clarify the specific action the standard is requiring. Items that might be better defined in Internal Control Procedures are also included in this part.
- b) Section II - Suggestions to slightly modify the Draft Technical requirements that do not represent the current thinking of any technical standards documents based in the North American region. These modifications are intended to keep the intent and focus of the standard the same, but would be more in line with current game manufacturing and other North American standards.
- c) Section III - Suggestions to modify Technical requirements that are subjective in nature. The goal would be to remove judgement calls or other subjective text and interpretations.
- d) Section IV - Suggestions to remove or re-write Technical requirements that require suppliers to build devices a certain way, instead of leaving the "how" open and just documenting what needs to be satisfied.
- e) Section V - New Comments on the proposed Class II Technical Standards. These comments are regarding the new text that was added from the prior release.

Section I - Definitions and Simple Text Change Suggestions

Most of the items mentioned in this section are either questions on how you desire certain operations to occur, changes to simple word usage, or requests for certain items to be moved from this document to the Internal Control Documents germane to the running of Class II Bingo games.

NIGC Regulation § 547.6.a.19 - Please define what constitutes an aborted game.

NIGC Regulation § 547.7.g.4.1 - What about side mount bill acceptor units? These are contained in a separate box attached to the outside of the player terminal. Provided the box was secured and monitored properly, would this comply?

NIGC Regulation § 547.10.e.4 - This rule only specifies this requirement for hoppers. This should also apply for printers as well.

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NIGC Regulation § 547.11.b.1 & 2 and NIGC Regulation § 547.11.c.1 & 2 - These regulations are requiring a manufacturer to only use one predefined type of critical memory integrity checking. Not all manufacturers maintain multiple copies of data as part of their critical memory. Some manufacturers may use a CRC signature to validate their data and not use multiple copies.

NIGC Regulation § 547.14.a.2 - This requirement seems to imply that a graphical display is required. Some manufacturers may use a text representation of the game in the game area. Perhaps this can be reworded so text representation is permitted.

NIGC Regulation § 547.23.b.1 - We are not sure of what the intent is to define the types of encryption algorithms that are 'demonstrably secure'. We recommend that specific types of encryption algorithms not be listed, as it is possible that one of 'demonstrably secure' algorithms could be broken in the future. Additionally, there may be more secure encryption algorithms developed in the future, but they would not be listed here as a 'demonstrably secure' algorithm.

NIGC Regulation § 547.23.a.1 - We would respectfully request this entire section be slightly modified. This rule requires encryption whenever communications traverse public areas. Since the entire gaming floor is a public area we recommend that this be re-worded to reflect that encryption be used whenever the communications leave the physical building (E.G. DMM, etc. Operations) and that In-house communications be secure from other networks, server hardware areas and other internal control standards.

Section II- Suggestions based on Current North American Gaming Practices

While this section deals with many fundamental items detailed in the Draft Standards, we do not want to give the impression that each of these specific items have no redeeming value. What we are trying to present is a balanced view toward items detailed in the standard when compared to other gaming standards in North America. Manufacturers will be forced to spend hundreds of amounts of money to comply with several of these items and we ask that the relative value in the standard be balanced against the potential cost.

NIGC Regulation § 547.6.d - Most manufacturers only record the following data on the server: (17) Final game result, including progressive prizes awarded and, for bingo, game number and numbers or designations drawn, in the order drawn. Most of the information listed here is generally stored on the client device and not the server.

NIGC Regulation § 547.6.e - Most manufacturers do not record any of the listed significant events on the server.

NIGC Regulation § 547.7.11.v & vi - Most interfaces are not located within the main door area, which we consider to be the logic area. While some interface connections are made within the logic area, others may reside outside of the logic area. For example, the Bill Acceptor, Hopper, and Printer communications interfaces are generally accessible within the Main Door area of a gaming machine. Under this requirement, many manufacturers would not be able to comply.

NIGC Regulation § 547.11.c.1 - The requirements listed above are excessive and will not be supported by almost every manufacturer. There are currently no other Class III gaming jurisdictions that require the critical memory to be checked after Bill Input, Cashless Transfers, Gaming Laboratories International, Inc.
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Vouchers Printed, or Vouchers Redeemed. Also, the requirement for a critical memory check before AND after a game play is excessive, as the critical memory checks only need to be done on game start for the few domestic jurisdictions (less than ten) that require this.

NIGC Regulation § 547.11.d.4 - This requirement may not be possible for most manufacturers to meet. A processor can only be swapped out from a powered-down state and only after the machine has been accessed. Additionally, many processors may be physically and logically identical to each other and there will be no possible way for a program to recognize the replacement has taken place. GLI normally recommends that 'security tape' be placed over removable Microprocessors, RAM, and other electronic components involved in the operation, calculation, or determination of game play and game results.

NIGC Regulation § 547.13.a.1.III - and NIGC Regulation § 547.7.e.3 - For most manufacturers it is not possible to know if the coin diverter has physically failed.

NIGC Regulation § 547.14.b - For items #5 through #8 this requirement may be considered excessive. Accounting meters are already recorded elsewhere on the device. Additionally, the other items generally have their own recall as specified elsewhere in the regulations. It would be redundant to require a manufacturer to display ALL of this information in a game recall screen.

NIGC Regulation § 547.17.a.1 - The required files to be on the FAC document may be considered excessive. Any files, scripts, procedures, etc. not involved in the operation, calculation, display, or determination of game play and game results are generally not required to be controlled. It is understood that this document is intended to provide an outline of the Class III architecture for ease of reference and control. Independent Testing Laboratories are generally skilled enough to identify the files that come under regulatory purview. We believe this rule puts an unnecessary burden on the creator of the FAC document.

NIGC Regulation § 547.17.b and § 547.17.c - Not all of GLI's verification tools (which are accepted as third party verification programs by Class III gaming jurisdictions) have the ability use a seeding methodology. Requesting a manufacturer to support this may be considered excessive.

Section III - Suggestions To Remove Subjective Requirements

Overview

From a testing Laboratory view, the hardest standards to test against are those that cannot be quantified. Black/White, Yes/No type questions leave no doubt as to how the particular device functions and avoids "surprises" when the device hits the floor. While it is important to explain what you desire in a device, subjective standards make it extremely difficult for a manufacturer, lab or regulator to understand exactly what the requirement is. This leads to excessive re-writing of the standards, products that are well into their design path that have to be re-worked, tests that have to be re-done all adding to the overall cost and time required to deliver a product to the field. We offer these suggestions in an effort to limit subjectivity and further understand exactly what the demands and requirements on the systems and devices will be.

NIGC Regulation § 547.7.m.3 - This standard is not appropriate. There is no method guaranteeing that a failed door switch will register as an open door. Any door can be simulated

as "closed" once opened; because a cheater can attach his own optics or simulate a door being closed.

NIGC Regulation § 547.11.a.3 - This requirement is not recommended and should be removed. Gaming Devices and their critical memory are often stored in a manner that is not "bit" tolerant. Any gaming machine that has suffered critical memory failure has had its data corrupted. It would not be recommended that the gaming machine even attempt to determine what records are still viable and which are corrupted, because corrupted data could be used to perform this evaluation.

NIGC Regulation § 547.23.a.5 - GLI Comment - Items (v) through (viii) are typically transmitted via the communication protocol of the host accounting system which is not normally encrypted.

Section IV - Suggestions Regarding the Removal of Certain Requirements

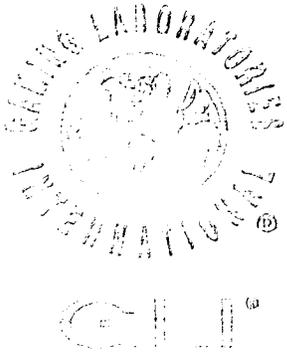
While we generally believe that we understand what the NIGC is asking for in the following standards, we feel that everyone involved would be better served by objectively stepping back and re-working some of these sections. Areas best suited for protocol should be included in protocol documentation, not the technical standards. Items that limit the manufacturers from making use of new technology or new trends in gaming should be eliminated. Rules currently in use that have almost universal acceptance should be considered before "re-inventing the wheel." We add these suggestions in an effort to remove some of the most difficult, expensive, or over-written sections in an effort to find a more simple way of defining the need and the requirements.

NIGC Regulation § 547.11.f.3 - This requirement could be considered excessive. There are some configuration settings that can be changed after a critical memory reset that are NIGC normally required to be secured. For example, Hopper limits, printer limits, printer settings, attraction modes, etc. Also this rule does not make any provision for manufacturers that have a secured method (such as a set chip) of making certain specific configuration changes after a critical memory reset.

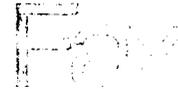
NIGC Regulation § 547.17 - We ask that there be a complete review of the FAC concept in its entirety as it is implemented here. It is not used anywhere else so is detailed and we question the security when compared to other methods of software validation currently in use today. This may be a better solution.

Conclusion

Again, we thank the NIGC for allowing us the opportunity to present our comments on the proposed Class II Technical Standards. We recognize that significant changes have been made since your previous release and applaud the efforts that went into these changes and hope that these comments may assist in the creation of a fair, universally accepted standard. We are available to assist in any way possible. Please feel free to contact us if you have any questions or if you need any further clarifications. As always, we are at your service.



GLI World Headquarters
600 Airport Road, Lakewood, NJ 08701 USA
Phone: 732.942.3999
Fax: 732.942.0043
www.gaminglabs.com



To: Mr. Michael Gross - NIGC From: James R. Maida
Fax: (302) 632-7066 Pages: 5 (including this page)
Phone: Date: October 2, 2006
Re: Class II Suggestions C:

Urgent For Review Please Comment Please Reply Please Reply

Mr. Gross:

My apologies on not getting the comments to you on Friday. The delay was an oversight (it was thought that they were faxed over on Friday). Please accept my apologies and call me if you have any questions on the contents.

Thank you,

James R. Maida
President
Gaming Laboratories International, Inc.

Christine Gallo
or
Patrick Moore

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