EXHIBIT 5

Underlining and strikethroughs are marked against the existing provisions wherever feasible. Text taken from existing provisions of the Rules or Procedures is marked as entirely new where it (i) is derived from multiple existing sources or (ii) results from relocating an existing Rule or Procedure into a newly proposed Rule.

Underlined text indicates new text

~~Strikethrough~~ text indicates deleted text

RULES

OF

CME Securities Clearing Inc.

CHAPTER 1. DEFINITIONS

Rule 101. Definitions

Unless the context otherwise requires, for all purposes of these Rules, the terms defined in this Rule 101 shall have the meanings specified below.

The term "Account" means a Member Account, Independent User Account or Supported User Account, as the context requires.

The term "Advisory" means a notice to Members and/or Users.

The term "Affiliate" has the meaning given to that word in Rule 405 under the Securities Act.

The term "Associated Person" means, when applied in relation to any person, any partner, officer, or director of such person (or any person occupying a similar status or performing similar functions), or any person directly or indirectly controlling, controlled by or under common control with such person, including any employee of such person.

The term "Authorization Agreement" means an agreement between a Member and a User under which a Member agrees to authorize the User's access to a Clearing Service for Eligible Securities Transactions.

The term "Bank" means any ~~bank~~U.S. Federal Reserve Bank or any ''bank'' within the meaning of that term as defined in section 3(a)(6) of the Securities Exchange Act that is insured by the Federal Deposit Insurance Corporation, which is designated by the Corporation as a bank where the Corporation maintains one or more accounts in which the Corporation holds and receives assets posted to it as margin collateral and/or makes or receives payments in satisfaction of the Corporation's Outstanding Exposure Settlement.

The term "Board of Directors" or "Board" means the Board of Directors of the Corporation.

The term "Business Day" means any day on which the Corporation is open for business.

The term "By-Laws" means the By-Laws of the Corporation as they may be amended from time to time.

The term "cash" means U.S. Dollar cash.

The term "Cash Treasury Transaction" means a secondary market transaction for the outright purchase or sale of a U.S. Treasury security that is an Eligible Securities Transaction.

The term "CFTC" means the U.S. Commodity Futures Trading Commission.

The term "Clear to Deliver Transaction" means a Repo Transaction in which the collateral is delivered to the buyer.

The term "Clear to Hold Transaction" means a Repo Transaction in which the collateral is held at a Securities Settlement Bank for the benefit of the buyer.

The term "Clearing Services" means the services provided by the Corporation to Members and to Users to clear and settle Eligible Securities Transactions and initially encompasses the Interest Rate Securities Clearing Service.

The term "CLF" means the Corporation's Capped Liquidity Facility.

The term "CLF Event" means an event declared the Corporation pursuant to Rule 410.

The term "CLF Event Transaction" means a repurchase transaction entered into between the Corporation and a Member pursuant to a CLF MRA.

The term "CLF Event Transaction Termination Date" means the date that is 30 days after the Corporation enters into a CLF Event Transaction, or such other date as specified by the Corporation pursuant to Rule 410.

The term "CLF MRA" means a Capped Liquidity Facility Master Repurchase Agreement as further prescribed in Rule 410.

The term "Close of Business" means, with respect to each Business Day, 8:00 p.m. Eastern Time, unless otherwise determined by the Corporation.

The term "close-out" means in relation to a Repo Transaction the sale of Eligible Securities by a Member or User to extinguish the cash receipt entitlement obligation of such Member or User.

~~The term "Cooling Off Period" has the meaning prescribed in paragraph (b) of Rule 413.~~

The term "CME" means Chicago Mercantile Exchange Inc.

The term "CME Group" means CME Group Inc., the parent company of the Corporation.

The term "Cooling Off Period" has the meaning prescribed in Rule 413(b).

The term "Commodity Exchange Act" means the Commodity Exchange Act of 1936, as amended.

The term "Competitive Auction" means an auction conducted pursuant to Rule 1508.

The term "Controlling Management" has the meaning prescribed in ~~paragraph~~ Rule 308(a) ~~of Rule 308~~.

The term "Corporation" means CME Securities Clearing Inc.

The term "Corporation Default" has the meaning prescribed in Rule 714.

The term "Daily Margin Report" means the report made available to Members and Independent Users as set forth in Rule 508, indicating the margin amount posted for each Member Account, Independent User Account, and/or Supported User Account, as applicable, and indicating whether each such account has a margin surplus or deficit to be satisfied.

The term "Default" means a Member Default or User Default.

The term "Default Assessment" has the meaning prescribed in ~~paragraph~~ Rule 402(c) ~~of Rule 402~~.

The terms "Defaulting Member" or "Defaulting User" mean a Member or User that is treated by the Corporation as insolvent pursuant to Rule 901, or with respect to which the Corporation has ceased to act pursuant to Rule 902.

The terms "Designated Examining Authority" or "DEA" mean, in relation to a Member or a User that is registered under the Securities Exchange Act as a broker or a dealer, any examining authority designated by the SEC pursuant to Rule 17d-1 under the Securities Exchange Act.

The term "Eligible Platform" means any agency trading platform or affirmation/confirmation platform that has executed an agreement with the Corporation pursuant to which it sends Eligible Securities Transactions to the Corporation for clearance and settlement.

The term "Eligible Secondary Market Transaction" has the meaning prescribed in ~~paragraph~~ Rule 202(a) ~~of Rule 202~~.

The term "Eligible Securities Transaction" means any contract to purchase or sell an Eligible Security of a type that the Corporation has determined is eligible for clearance and settlement services.

The term "Eligible Security" means a security, as that term is defined in the Securities Exchange Act, or one or more categories of such securities as represented by a generic Committee on the Uniform Security Identification Process ("CUSIP") number, that the Corporation has approved to be subject to a contract to purchase and/or sell. Any security of an issuer that is listed on the specially designated nationals list ("SDN List") maintained by the Office of Foreign Assets Control ("OFAC") of the U.S. Treasury, or of an issuer that is incorporated in a country that is on the OFAC list of countries subject to comprehensive sanctions, shall not be an "Eligible Security."

The term "Federal Deposit Insurance Act" means the Federal Deposit Insurance Act of 1950, as amended.

The term "Funded Supported User Margin" means the proprietary cash and Qualified Margin Securities of a Member that the Member uses to fund the margin required by the Corporation with respect to the Eligible Securities Transactions of a Supported User that the Member authorizes.

The term "General Collateral Bucket" means any category of U.S. Treasury securities that fall within a range of maturities set by the Corporation, which securities the Corporation has determined to accept as Eligible Securities that may be transferred to settle a Repo Transaction submitted to the Corporation for clearing.

The term "Guaranty Fund" means the fund established pursuant to Rules 401 through 403.

The term "Haircut Collateral" means the ~~excess of the~~ value of the Eligible Securities that the securities buyer receives under a Repo Transaction in excess of the value of funds that the securities buyer transfers to the securities seller under the Repo Transaction.

The term "Head of the Corporation" means the individual who serves as the head of the Corporation.

The term "Independent User" means a User that is approved by the Corporation to use a Clearing Service through an Independent User Account.

The term "Independent User Account" means an account established and maintained by the Corporation within its books and records in the name and for the benefit of an Independent User.

The term "Interest Rate Securities Clearing Service" means the Clearing Service offered by the Corporation for ~~clearing~~clearance and settlement of Repo Transactions involving U.S. Treasury Securities that are Eligible Securities Transactions and Cash Treasury Transactions.

The term "Investment Advisers Act" means the Investment Advisers Act of 1940, as amended.

The term "Investment Company Act" means the Investment Company Act of 1940, as amended.

The term "Member" means any person that has qualified for, applied for, and been approved for membership in the Corporation as set forth in Chapter 3 of these Rules, has executed a Member Agreement with the Corporation, and has met other membership criteria as specified by the Corporation from time to time. Members may clear proprietary Eligible Securities Transactions through the Corporation and authorize Users with respect to clearing Eligible Securities Transactions through the Corporation.

The term "Member Account" means an account established and maintained by the Corporation within its books and records in the name and for the benefit of a Member.

The term "Member Agreement" means an agreement between a Member and the Corporation under which a Member is approved to clear Eligible Securities Transaction(s) through the Corporation; a Member may enter into a Member Agreement for each Clearing Services in which it participates.

The term "Member Application" means the application filed by a prospective Member with the Corporation as set forth in Rule 303.

The terms "Member Default" or "User Default" mean, respectively, the circumstances in which the Corporation treats the Member or User as insolvent pursuant to Rule 901, or where the Corporation has ceased to act for the Member or User pursuant to Rule 902. The Rules in the Chapter governing a specific Clearing Service provide additional guidance on when a failure to deliver under an Eligible Securities Transaction cleared through that Clearing Service may result in the Corporation ceasing to act for a Member or User in relation to that Clearing Service. The term User Default may apply to either Independent Users or Supported Users as the context requires.

The term "Member Family" means a group consisting of a Member and any other Member that, directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with such Member.

The term "Off Leg" means the concluding settlement aspects of a Repo Transaction, involving the transfer of the Eligible Securities by the securities buyer to the securities seller against the transfer of funds by the securities seller.

The term "Operational Date" means the date on which the Corporation commences operations as a registered clearing agency.

The term "Outstanding Exposure Settlement" means the at least daily, and more frequently as determined by the Corporation, settlement between the Corporation and its Participants of outstanding obligations to pay or collect, as applicable, any settlement variation and any other payments due in respect of a cleared Cash Treasury Transaction or Repo Transaction (including price alignment amount, coupon payments, accruals, adjustments, and for the avoidance of doubt, excluding any posting of initial margin).

The term "Participant" means a Member or User.

The term "Participant Family" means each group consisting of a Member or a User and any other Member or User that, directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with, such Member or User.

The term "person" as used in this Rulebook refers to any partnership, corporation, or other organization, entity, or individual.

The term "Price Alignment Amount" means, where required, a payment of interest made by the receiver of a mark-to-market settlement variation and repo rate accrual to the payor, calculated with reference to a specified interest rate for the applicable period.

The term "Procedures" means ~~the~~any Procedures ~~of~~ the Corporation ~~adopted~~may adopt pursuant to Rule 705.

The term "Qualified Margin Securities" means those U.S. Treasury securities and such other securities as may be acceptable to the Corporation to be posted as margin to meet initial margin obligations.

The term "Repo Transaction" means a transaction in a repo that is an Eligible Securities Transaction.

The terms "repurchase agreement" or "repo" mean an agreement under which one party (the securities seller), agrees to transfer Eligible Securities to another party (the securities buyer) against the transfer of funds by the securities buyer, with a simultaneous agreement by the securities buyer to transfer to the securities seller such Eligible Securities at a date certain or on demand, against the transfer of funds by the securities seller.

The term "Required Guaranty Fund Contribution" means the total amount of cash or securities that a Member must deposit in the Guaranty Fund pursuant to ~~paragraph~~ Rule 402(b) ~~of Rule 402~~.

The term "Rules" means the rules of the Corporation as they may be amended from time to time.

The term "SEC" means the U.S. Securities and Exchange Commission.

The term "Securities Act" means the Securities Act of 1933, as amended.

The term "Securities Clearing System" means the clearing system utilized by the Corporation.

The term "Securities Exchange Act" means the Securities Exchange Act of 1934, as amended.

The term "self-regulatory organization" has the meaning set out in Section 3(a)(26) of the Securities Exchange Act.

The term "Securities Settlement Bank" means an entity that is a bank or trust company, subject to supervision under Federal or State banking laws, and designated by the Corporation for the purposes of facilitating the settlement of Eligible Securities Transactions and for holding collateral for Repo Transactions, as applicable.

The term "Start Leg" means the initial settlement aspects of a Repo Transaction, involving the transfer of Eligible Securities from the securities seller to the securities buyer against the transfer of funds by the securities buyer.

The term "Supported User" means a User that is approved by the Corporation and its authorizing Member to use a Clearing Service through a Supported User Account.

The term "Supported User Account" means an account established and maintained by the Corporation within its books and records designated in the name of and for the benefit of a specified Supported User.

The term "Supported User Margin" means the portion of the cash and Qualified Margin Securities posted as margin to the Corporation for a Supported User's Account that is funded by the Supported User, as designated by the Supported User's authorizing Member to the Corporation in its collateral value reports submitted to the Corporation.

The term "User" means a person that is not a Member but has qualified for and applied for status as a User and been approved as a User to submit specified Eligible Securities Transactions to the Corporation for clearing, has executed a User Agreement with the Corporation, and has met other User criteria as specified by the Corporation from time to time. The term "User" includes both Independent Users and Supported Users, except as otherwise explicitly provided in the Rules or as the context requires.

The term "User Account" means an Independent User Account or a Supported User Account, as the context requires.

The term "User Agreement" means an agreement between a User and the Corporation under which a User is approved to clear Eligible Securities Transactions through the Corporation; a User may enter into a User Agreement for each Clearing Service in which it participates.

The term "User Application" means the application filed by a prospective User with the Corporation pursuant to Rule 303.

The term "U.S. Government Securities Broker-Dealer" means a broker-dealer registered with the SEC or a state or federally chartered bank or savings association (or a state or federally licensed branch or agency of a foreign bank) that is subject to bank supervision that functions in the operation of markets for U.S. Treasuries. The functions may include, but are not limited to: (1) acting as a channel for the United States Department of the Treasury and investors in primary market for U.S. Treasuries (for example, by participating in auctions); (2) acting as providers of liquidity in primary and secondary markets for U.S. Treasuries; and (3) acting as providers of asset transformation and market making services in the market for U.S. Treasuries.

The term "U.S. Treasury" means the United States Department of the Treasury.

CHAPTER 2. ELIGIBLE SECURITIES TRANSACTIONS

Rule 201. Eligible Securities Transactions

(a) Determination of Eligibility. The Corporation from time to time, consistent with its operational capabilities and regulatory requirements, including any necessary approvals by the SEC, shall determine the securities transactions that are Eligible Securities Transactions.

(b) Notice of Discontinuance of Eligibility. Should the Corporation discontinue the eligibility of any securities transactions, the Corporation shall give notice thereof to all Members and Users via an Advisory prior to the discontinuance of the eligibility of such securities transactions, and the Corporation shall state the reasons for such discontinuance. From and after the effective date specified in the record of the decision, the Corporation shall cease to render services with respect to such securities transactions.

(c) List of Securities Transactions. The Corporation shall maintain and make available to Members and Users upon request a ~~list of all~~master file listing each Eligible Securities ~~Transactions. The Corporation shall~~Transaction, and may from time to time add to, or remove from, ~~the~~such list of Eligible Securities Transactions. The Corporation shall add an Eligible Securities Transaction only ~~after~~upon a determination by the Corporation ~~pursuant to this Rule 201.~~that it has the existing operational capability to clear and settle such Eligible Securities Transaction and to continue to successfully to provide its services to Members and Users. The Corporation may, in its discretion, approve proposed Eligible Securities Transactions for clearance and settlement. Eligible Securities Transactions that significantly impact the risk profile of the Corporation shall be reviewed and approved by the Risk Management Committee and referred to the Board for its review and approval upon recommendation of the Risk Management Committee. The Corporation's approval is required in order to add or remove any Eligible Securities Transaction.

Rule 202. Eligible Secondary Market Transactions

(a) Definition. The term "Eligible Secondary Market Transaction" means an "eligible secondary market transaction" as that term is defined in Rule 17ad-22(a) under the Securities Exchange Act.

(b) Required Clearing. Each Member who is a counterparty to an Eligible Securities Transaction that is an Eligible Secondary Market Transaction must submit that transaction for ~~clearing~~clearance and settlement to either the Corporation or another clearing agency registered with the SEC that is a covered clearing agency.

(c) Rejected Transaction. If a Member submits an Eligible Securities Transaction that is rejected by the Corporation for clearing as provided in ~~paragraph~~ Rule 602(d) ~~of Rule 602 and related Procedures~~, the Member shall comply with its obligation under ~~paragraph~~ Rule 202(b) ~~of this Rule 202~~ in another manner.

(d) Monitoring.

(i) ~~(d) Monitoring.~~ The Corporation ~~will~~shall conduct periodic routine reviews of Members to monitor each Member's compliance with its obligation under ~~paragraph (b) of this Rule 202. Each Member must fully cooperate with any inquiry, investigation or review conducted by the Corporation of the Member's compliance with such obligation.~~Rule 202(b) to submit its Eligible Secondary Market Transactions to the Corporation or to another clearing agency registered with the SEC that is a covered clearing agency. The examinations will be conducted by designated staff in accordance with the review cycle established by such staff from time to time, provided, however, that staff shall schedule a routine examination of a given Member at least once every three years.

(ii) The Corporation will monitor Eligible Secondary Market Transactions submitted by a Member to the Corporation. If a transaction is rejected the Corporation will attempt to work with the Member to resubmit the transaction. If the Corporation identifies a pattern in which the Member does not resubmit the nonconforming transaction to the Corporation in the form and by the deadline prescribed in these Rules for the relevant Clearing Service for the transaction, the Corporation may request the Member to provide information and supporting documentation to demonstrate how the Member has resolved the situation to comply with its obligation under Rule 202(b) to submit its Eligible Secondary Market Transactions to a covered clearing agency for clearing.

(iii) If Corporation staff detects a pattern of potential violations of the Member's obligation under Rule 202(b), staff shall refer the matter for disciplinary action against the Member. If staff preliminarily determines that a Member may have violated its obligation under Rule 202(b) as to a single Eligible Secondary Market Transaction or with respect to multiple transactions at a lesser frequency than described in the foregoing sentence, staff in its discretion may issue a reminder letter or warning letter to the Member or refer the matter for disciplinary action against the Member

(iv) A Member must cooperate in any review or inquiry conducted by the Corporation staff described in Rules 202(d)(i) or (d)(ii). The Corporation may take disciplinary action against a Member for its failure to cooperate in any such review or inquiry.

(v) When applying for status as a Member, the applicant must inform the Corporation if it is a direct participant of any other clearing agency registered with the SEC that is a covered clearing agency (as the term direct participant is defined in Rule 17ad-22(a) under the Securities Exchange Act) and the name of any each such other clearing agency. Thereafter, a Member must promptly notify the Corporation of any changes to such information.

CHAPTER 3. QUALIFICATION FOR MEMBER OR USER ACCESS

Rule 301. General

(a) Members. The Corporation shall act for those persons who meet the membership criteria as set forth in these Rules, who apply to the Corporation to act for them as Members, whose applications as Members are approved by the Corporation, and who execute a Member Agreement with the Corporation.

(b) Users. The Corporation shall act for those persons who meet the criteria for being Users as set forth in these Rules, who apply to the Corporation to act for them as Users, whose applications as Users are approved by the Corporation, and who execute a User Agreement with the Corporation. A User who submits Eligible Securities Transactions to the Corporation for clearing shall, upon novation, become a counterparty to the Corporation and therefore will be liable as a principal to the Corporation with respect to those transactions. Moreover, each User must be authorized by a Member. A User shall not be required to contribute to the Guaranty Fund. There are two categories of Users: Independent Users and Supported Users.

(c) Clearing Services. From time to time, the Corporation may be approved by the SEC to clear additional types of Eligible Securities Transactions. The Corporation shall act for a Member or User only with respect to the Eligible Securities Transaction(s) in the Clearing Service(s) for which the Member or User has been approved by the Corporation.

Rule 302. Applicants Eligible to Become Members and Users

(a) Except as otherwise set forth in these Rules, any of the following persons may be approved as a Member or User, provided that such person meets the qualifications set forth in this Chapter; contributes to the Guaranty Fund in accordance with the requirements of Chapter 4, if such person is a Member; and meets any other requirements applicable to Members or Users as set forth in these Rules:

(i) broker-dealers registered pursuant to Sections 15 or 15C of the Securities Exchange Act;

(ii) banks that are subject to the supervision and regulation of their chartering authority in the U.S. at either federal (i.e., the Federal Reserve System, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation) and/or state (i.e., state banking agencies), or for non-U.S. banks, the foreign equivalent to such chartering authority(ies);

(iii) futures commission merchants registered pursuant to the Commodity Exchange Act;

(iv) unregistered investment pools, which are entities primarily engaged in the business of investing, reinvesting, or trading securities that hold pools of securities and/or other assets that meet the following criteria: (i) they are not registered as an investment company under the Investment Company Act; (ii) they do not register their securities offerings under the Securities Act; (iii) they satisfy minimum net asset requirements as set forth in ~~paragraph~~ Rule 306(b)(~~v~~iv) ~~of Rule 306~~; and (iv) they have an investment adviser that is domiciled in the U.S. and that is registered with the SEC under the Investment Advisers Act ("Unregistered Investment Pool"); and

(v) proprietary trading firms.

(b) In addition, the following persons may be approved as Users, provided that such person meets the qualifications set forth in this Chapter and meets any other requirements applicable to Users as set forth in these Rules:

(i) trust companies, including trust companies having limited power;

(ii) clearing agencies registered pursuant to Section 17A of the Securities Exchange Act;

(iii) investment companies registered pursuant to Section 8 of the Investment Company Act~~,~~; and

(iv) insurance companies, as that term defined in Section 2(a)(17) of the Investment Company Act.

(c) The Corporation may permit additional categories of persons to be Members or Users as determined by the Corporation ~~may~~ from time to time ~~determine, which at the Corporation's discretion~~, subject to the Risk Management Committee's approval of such additional categories, which categories may differ for Members or Users. Such approvals of additional categories must be consistent with the requirements of the Securities Exchange Act.

Rule 303. Application Process

(a) Form.

(i) General. Application may be made to become a Member or User with respect to the clearance of any Eligible Securities Transaction for which the Corporation offers Clearing Services. Currently, the Corporation offers the Interest

Rate Securities Clearing Service. A person must be approved as a Member or User for the Interest Rate Securities Clearing Service.

(ii) Applications for Member Status. ~~Applications~~An application for Member status shall be filed with the Corporation electronically or via email in such form and contain such information as set out in the Member Application, which the Corporation may amend from time to time. Applicants must also provide any additional information to the Corporation as requested from time to time. In addition, an applicant for Member status must comply with any additional requirements prescribed in the Rulebook governing the Clearing Service(s) for which the applicant seeks authorization to participate.

(iii) Applications for User Status. ~~Applications~~An application for User status shall be filed with the Corporation electronically or via email in such form and contain such information as set out in the User Application, which the Corporation may amend from time to time. Applicants must also provide any additional information to the Corporation as requested from time to time. An applicant for User status must have a Member, or be in the process of obtaining a Member, that agrees to nominate such applicant to be authorized to clear and settle the applicant's Eligible Securities Transactions through the Corporation. ~~Applications~~An application for User status must be accompanied by the authorizing Member's verification in the form prescribed by the Corporation that the Member is nominating the applicant to be a User and agrees to authorize the person as a User, has conducted due diligence on the applicant as prescribed in ~~paragraph (b) of this~~ Rule 303(c), and has determined that the applicant has the operational and financial capacity to meet its obligations under these Rules if approved as a User. In addition, an applicant for User status must comply with any additional requirements prescribed in the Rulebook governing the Clearing Service(s) for which the applicant seeks authorization to participate.

(iv) Member Authorization of User. With respect to a Member seeking to nominate and authorize persons as Users, the Corporation may request the Member to provide information and materials demonstrating that such Member (A) has the necessary right, authority, and power to act in such capacity and that its performance of its obligations under these Rules in relation to its authorized Users (including Supported Users) is and will be consistent with the laws applicable to it, and/or (B) has any requisite regulatory approval or license that may be required to act in such capacity.

(b) Registered Investment Advisers. The application materials for a registered investment company applicant or an unregistered investment pool applicant must be submitted

on the applicant's behalf by an investment adviser registered under the Investment Advisers Act that is duly authorized to act in the name of the applicant.

(c) Member Due Diligence of Authorized Users. Before nominating any person as a User, a Member must conduct reasonable due diligence on such User's credit and liquidity profile and operational capabilities regarding the User's ability to fund its obligations to the Corporation and, if applicable, to the Member.

(d) Corporation Due Diligence. The Corporation may request the books and records of any applicant, take such evidence as it may deem necessary or employ such other means as it may deem necessary, desirable, or appropriate to ascertain relevant facts bearing upon the applicant's qualifications.

(e) Determination. The ~~Corporation~~Corporation's staff will review ~~applications for~~ Member and User ~~status~~applications and recommend approval or disapproval to the Corporation's Risk Management Committee, which shall review and approve or disapprove the ~~applications in accordance with Procedure 3-1.~~ application. The Corporation is not subject to any specific timeframe for approving or disapproving an application.

(f) Disapproval. If the ~~determination is made to disapprove~~Risk Management Committee denies the application, pursuant to ~~paragraph~~ Rule 1002(b) ~~of Rule 1002~~, the applicant will be provided with notice of the determination to disapprove the application, the specific grounds for that determination, and the applicant's right to a hearing. ~~If the determination is made to disapprove an application, the~~The Corporation shall promptly file notice of such determination with the SEC and the applicant's appropriate regulatory agency (if other than the SEC) as set forth in Rule 1013.

(g) Conditions for Approval. An applicant for Member or User status agrees that the Corporation:

(i) may make inquiries of any nature about the applicant and any person connected or associated with the applicant;

(ii) may ask the applicant to supply additional information and take whatever steps are necessary to verify information;

(iii) may provide or disclose information to a governmental agency, regulatory organization, other authority, or to the Corporation's insurers in connection with any form of insurance, or to any person in accordance with any other statutory requirement, and in accordance with the terms of the Member Agreement or User Agreement; and

(iv) may disclose to any other party the applicant's name, address, and details of any exchange or clearing memberships held or applied for.

(h) Satisfaction of Conditions for Approval. Applicants approved by the Corporation for Member or User status ("Approved Applicants") must fulfill all conditions associated with their approval within the timeframe established by the Corporation. If an Approved Applicant does not fulfill all such conditions within the established timeframe, the Corporation may, at its sole discretion, consider the grant of approval to have lapsed and may notify the prospective Member or User that it will be required to provide further information, following which the application will be submitted for consideration of re-approval.

(i) Limitation of Approval. Member or User status with the Corporation does not confer on the Member or User any "participant" or "member" or comparable status with any Affiliate of the Corporation.

(j) Other Requirements. Upon approval of a Member's or User's application, Member or User status is subject to the Approved Applicant completing satisfactory operational testing with the Corporation and any other requirements or conditions imposed by the Corporation.

Rule 304. Guaranty Fund Contribution for Members

No applicant approved as a Member shall be eligible to clear Eligible Securities Transactions before depositing with the Corporation a contribution to the Guaranty Fund in the amount required by Chapter 4.

Rule 305. Member Agreements and User Agreements; Member Authorization Agreements

(a) No applicant shall be admitted as a Member until the applicant has signed and delivered to the Corporation a Member Agreement, whereby it agrees, in addition to such other terms as the Corporation may specify:

(i) to abide by the By-Laws~~,~~ and Rules~~, and Procedures~~;

(ii) that the By-Laws~~,~~ and Rules~~, and Procedures~~ shall be a part of the terms and conditions of every contract or transaction which it may make or have with the Corporation;

(iii) to grant the Corporation all liens, rights, and remedies set forth in the By-Laws~~,~~ and Rules, ~~and Procedures,~~ and to execute any documents required by the Corporation to create and enforce such liens, rights, and remedies;

(iv) to pay to the Corporation all fees and other compensation provided by or pursuant to the By-Laws~~,~~ and Rules~~, and Procedures~~ for clearance and for all other services rendered by the Corporation to the applicant while a Member;

(v) to pay such fines as may be imposed on it in accordance with the By-Laws~~,~~ and Rules~~, and Procedures~~;

(vi) to permit inspection of its books and records at all times by representatives of the Corporation and to furnish the Corporation with all information in respect of the applicant's business and transactions as the Corporation or its officers may require;

(vii) to execute one or more master repurchase agreements as may be required by the Corporation;

(viii) to make such contributions to the Guaranty Fund as may be required from time to time, as the Corporation may determine;

(ix) to comply with applicable financial, margin, operational and reporting requirements of the Corporation, as the Corporation may determine;

(x) that the determination of the Corporation regarding all matters affecting the charges to which its contribution to the Guaranty Fund are or may be subject shall be final and conclusive;

(xi) to be bound by any amendment to the By-Laws~~,~~ or Rules~~, or Procedures~~ of the Corporation with respect to any transaction occurring subsequent to the time such amendment takes effect as fully as though such amendment were now a part of the By-Laws~~,~~ or Rules~~, or Procedures~~ of the Corporation; provided, however, that no such amendment shall affect its right to withdraw as a Member~~,~~ or alter the provisions of Chapter 4 of the Rules unless before such amendment becomes effective, the Member is given an opportunity to give written notice to the Corporation of its election to withdraw as a Member;

(xii) to maintain adequate controls to ensure continued satisfaction of financial and operational obligations of itself and each User it has authorized, if applicable;

(xiii) if it seeks to be qualified to nominate and authorize persons as Users, to represent and warrant to the Corporation that it has the necessary right, authority, and power to do so and that its performance of its obligations under the Rules ~~and~~

~~Procedures~~ in relation to its authorized Users (including Supported Users) is and will be consistent with the laws applicable to it;

(xiv) if it seeks to be qualified to nominate and authorize persons as Users, to represent and warrant to the Corporation that it has any regulatory approval or license that may be required for it to do so and to perform its obligations under the Rules ~~and Procedures~~ in relation to its authorized Users (including Supported Users) and to agree upon the Corporation's request to demonstrate to the Corporation's satisfaction that such representation is correct;

(xv) that its agreement with the Corporation shall inure to the benefit of and be binding upon the parties thereto and their respective successors and assigns; and

(xvi) to provide relevant identification and background information regarding the applicant and its Affiliates and owners as may be requested by the Corporation as part of the application process.

(b) No applicant shall be admitted as a User until the applicant has signed and delivered to the Corporation a User Agreement whereby it agrees, in addition to such other things as the Corporation may specify:

(i) to abide by the By-Laws~~,~~ and Rules~~, and Procedures~~;

(ii) that the By-Laws~~,~~ and Rules~~, and Procedures~~ shall be a part of the terms and conditions of every contract or transaction which it may make or have with the Corporation;

(iii) to grant the Corporation all liens, rights, and remedies set forth in the By-Laws~~,~~ and Rules~~, and Procedures~~ and to execute any documents required by the Corporation to create and enforce such liens, rights, and remedies;

(iv) to pay to the Corporation all fees and other compensation provided by or pursuant to the By-Laws~~,~~ and Rules~~, and Procedures~~ for clearance and for all other services rendered by the Corporation to the applicant while a User;

(v) to pay such fines that may be imposed on it in accordance with the By-Laws~~,~~ and Rules~~, and Procedures~~;

(vi) to permit inspection of its books and records at all times by representatives of the Corporation and to furnish the Corporation with all information in respect of the applicant's business and transactions as the Corporation or its officers may require;

(vii) to furnish the Corporation with all books, records, and other information in respect to the applicant's business and transactions relating to the clearing of Eligible Securities Transactions through the Corporation as the Corporation or its officers may require;

(viii) to comply with applicable margin, operational, and reporting requirements of the Corporation, as the Corporation may determine;

(ix) to be bound by any amendment to the By-Laws~~,~~ or Rules~~, or Procedures~~ of the Corporation with respect to any transaction occurring subsequent to the time such amendment takes effect as fully as though such amendment were now a part of the By-Laws~~,~~ or Rules~~, or Procedures~~ of the Corporation; provided, however, that no such amendment shall affect its right to withdraw as a User, or alter the provisions of Chapter 4 of the Rules unless before such amendment becomes effective the User is given an opportunity to give written notice to the Corporation of its election to withdraw as a User;

(x) that its agreement with the Corporation shall inure to the benefit of and be binding upon the parties thereto, and their respective successors and assigns; and

(xi) to provide relevant identification and background information regarding the applicant and its Affiliates and owners as may be requested by the Corporation as part of the application process.

(c) Member Authorization Agreement Between a Member and Authorized User. A Member must enter into an Authorization Agreement with each User pursuant to which the Member agrees to authorize such person as a User, and may include in such agreement terms and conditions on which the Member will authorize the person as a User that supplement the rights and obligations to one another under the Rules~~ and Procedures~~. The terms of any such Authorization Agreement are a commercial matter between the Member and authorized User and the Corporation is not responsible for enforcing the terms of such agreement between them. The terms of any such agreement must be consistent with the parties' respective rights and obligations to the Corporation and to one another as set forth in the Rules~~ and Procedures~~. In the event of any inconsistency between the Rules~~ or Procedures~~, on the one hand, and the terms of an Authorization Agreement, the terms of the Rules ~~and the Procedures~~ shall govern and prevail.

(d) Terms and Conditions. The terms and conditions binding on each Member and User are set out in the Rules as well as the Member Agreement and the User Agreement, respectively. During the application process, an applicant for Member status or User status

must sign (but not date) a Member Agreement or User Agreement, respectively, and return it to the Corporation, along with the other application documentation.

(e) Member or User Agreement. If and when Member status or User status is granted, the Approved Applicant will receive a duly executed (and dated) copy of the Member Agreement or User Agreement, as applicable, together with the notification of acceptance and details of any condition(s) attached to its Member status or User status. With respect to User status, the Corporation will send, under separate cover, a copy of the duly executed and dated User Agreement to the Member that nominated and authorized the User.

Rule 306. Financial, Operational, and Other Requirements for Member Applicants

(a) General Financial and Operational Requirements. The Corporation shall consider whether prospective Members meet the standards of financial responsibility, operational capability (including risk monitoring), experience and competence, and other such qualifications as set forth in the Rules ~~and Procedures~~, when reviewing Member Applications. The applicable standards include, but are not limited to, the following:

(i) in addition to meeting the applicable financial responsibility standards set forth in ~~subparagraphs~~ Rules 306(b)(i) ~~through~~ -(~~b~~vi)~~(vii) of this Rule 306~~, the Member applicant must demonstrate that it has sufficient financial ability to meet its anticipated obligations to the Corporation, including its contribution to the Guaranty Fund, CLF obligation and ability to meet ~~an assessment~~a Default Assessment;

(ii) the Member applicant must demonstrate its ability to satisfactorily communicate with the Corporation, and demonstrate that it has adequate books, records, and procedures to fulfill the Member applicant's anticipated commitments to, and to meet the operational requirements of, the Corporation, other Members and Users, with necessary promptness and accuracy, and to conform to any conditions and requirements which the Corporation reasonably deems appropriate for the protection of the Corporation, other Members, and Users;

(iii) the Member applicant must have personnel with sufficient operational background and experience to ensure the ability of the Member applicant to engage in cleared Eligible Securities Transactions in accordance with the Rules;

(iv) the Member applicant must be in material compliance with all applicable requirements with respect to the maintenance of books and records under the Securities Exchange Act, or, for a Member applicant not subject to the Securities

Exchange Act, such requirements with respect to the maintenance of books and records under the regulatory regime to which the applicant is subject; and

(v) the Member applicant must not be subject to any other action or condition, the existence of which might adversely affect its ability to meet the standards of financial responsibility, operational capability, and experience and competence established by the Corporation.

(b) Minimum Financial Responsibility Standards for Members. Members must meet the following standards, as applicable:

(i) Broker-Dealers. A broker-dealer applicant shall have at least twenty million dollars ($20,000,000) in net capital, as defined in SEC Rule 15c3-1 under the Securities Exchange Act, provided that such amount is greater than its minimum capital requirement thereunder and, in the case of a broker-dealer dually registered as a futures commission merchant under the Commodity Exchange Act, greater than the amount of adjusted net capital required under CFTC Regulation 1.17 under the Commodity Exchange Act.

(ii) Banks. A bank applicant shall have at least five hundred million dollars ($500,000,000) in common equity tier 1 ("CET1") capital, as defined by the bank's primary regulator, or for non-U.S. banks, the foreign regulatory equivalent of the CET1 measure, and meet applicable regulatory standards with respect to leverage and capital ratios.

(iii) Non-Broker-Dealer Futures Commission Merchants. A futures commission merchant that is not dually registered as a broker-dealer under the Securities Exchange Act shall have at least twenty million dollars ($20,000,000) in adjusted net capital, as defined in CFTC Regulation 1.17 under the Commodity Exchange Act, provided that such amount is greater than the amount of adjusted net capital required thereunder.

(iv) Unregistered Investment Pools. An Unregistered Investment Pool applicant that identifies itself as ~~(y)~~ a hedge fund must have at least one hundred fifty million dollars ($150,000,000) in net assets, as defined as total assets less total liabilities. Any unregistered investment pool applicant that is not a hedge fund must also have at least one hundred and fifty million dollars ($150,000,000) in net assets, as measured by total assets less total liabilities. An unregistered investment pool applicant must be represented by an investment adviser registered under the Investment Advisers Act.

(v) Other Categories. For any applicant for Member status not covered by any of the categories described in ~~subparagraphs~~ Rules 306(b)(i) ~~through~~ -(~~b~~iv)~~(v) of this Rule 306~~, the Corporation will assign a minimum capital requirement to the applicant that is (A) at least twenty (20) million dollars, (B) equal to or greater than the applicant's regulatory minimum requirement, or (C) reflective of the applicant's risk profile.

(vi) Higher Requirements. An applicant for Member status must meet any higher capital and liquidity requirements prescribed by the Corporation from time to time for such person, as the Corporation determines appropriate taking into consideration the risk profile of the ~~Members~~Member which includes, but is not limited to, number and type of Users authorized by the person and the volume, size, and nature of such Users' cleared Eligible Securities Transactions.

(c) Minimum Operational and Risk Monitoring Requirements for Members. Each applicant for Member status must have and maintain written operational and risk management policies and procedures to ensure that it is able to perform risk and operational functions in accordance with the following requirements:

(i) Operational Matters. The Member applicant must have policies and procedures that document its ability to comply with its obligations in the following areas:

(A) daily trade settlement process with the Corporation;

(B) network and connectivity testing to the Corporation's applications and systems;

(C) disaster recovery and business continuity plans in accordance with Rule ~~311~~313; and

(D) cyber security program and completion of the Corporation's cybersecurity attestation form.

(ii) Risk Monitoring. The Member applicant must have policies and procedures that address its ability to:

(A) monitor the risks associated with clearing of its own Eligible Securities Transactions through the Corporation;

(B) limit the impact of significant market moves through the use of tools such as stress testing and credit controls;

(C) monitor its own clearing activity on an intraday and overnight basis; and

(D) access and use of defined sources of liquidity for its obligations to the Corporation, including, but not limited to, for initial margin, Outstanding Exposure Settlement, trade settlement, and the CLF.

(iii) Due Diligence and Risk Monitoring of Authorized Users.

(A) ~~(iii) Due Diligence and Risk Monitoring of Authorized Users.~~ If the Member applicant intends to nominate and authorize any persons as Users, it must ~~have~~establish, maintain, and enforce policies and procedures ("User Due Diligence Policies and Procedures") that demonstrate its ability to comply with the following requirements, provided, however, that it may adopt such policies and procedures subsequent to completion of its application process (assuming it is approved as a Member) and prior to nominating any person as a potential User:

a. ~~(A)~~ perform due diligence of each such User's credit and liquidity profile and operational capability to ensure the person can fund its obligations to the Corporation;

b. ~~(B)~~ determine the risk profile of each User it authorizes;

c. ~~(C)~~ monitor the risks associated with its authorized Users clearing Eligible Securities Transactions through the Corporation;

d. ~~(D)~~ monitor the clearing activity of its authorized Users on an intraday and overnight basis;

e. ~~(E)~~ limit the impact of significant market moves through the use of tools such as stress testing and credit controls;

f. ~~(F)~~ if the applicant is a single dealer execution platform, establish automated credit controls on its authorized Users trading on the applicant's platform; and

g. ~~(G)~~ If the applicant is not a single dealer execution platform, set and enforce automated credit controls on its authorized Users trading on a platform that is not a single dealer execution platform and that brings together multiple buyers and sellers for executing transactions in Eligible Securities Transactions.

(B) The Member must conduct due diligence of each applicant for User status it nominates before nominating the applicant and is deemed to represent to the Corporation that it has conducted such due diligence as required under Rule 306(c) and the Member's User Due Diligence Policies and Procedures each time it nominates an applicant to become a User.

(C) The Member must conduct routine periodic due diligence of its authorized Users. The Member's User Due Diligence Policies and Procedures must address the frequency with which it will conduct such due diligence reviews, provided, however, that the Member must conduct such reviews of Independent Users no less frequently than once per calendar year and Supported Users no less frequently than once per calendar year. The Member's User Due Diligence Policies and Procedures must also address conducting due diligence of any User more frequently based on Member-prescribed circumstances.

(iv) Other. Each applicant for Member status must have and maintain written policies and procedures addressing such additional and/or alternative operational and risk monitoring requirements as the Corporation may prescribe.

(d) Other Requirements. In addition to the financial and operational requirements set forth in this Rule 306, an applicant for Member status must meet any other requirements applicable to it, as set forth in the Rules ~~and Procedures~~, including any requirements to be able to use a specific Clearing Service as set forth in the ~~Chapter~~ Rules governing that Clearing Service. The Corporation reserves the right to impose additional risk-based requirements on Members at any time.

Rule 307. Operational and Other Requirements for User Applicants

(a) General and Operational Requirements for Users. The Corporation shall consider whether prospective Users meet the standards of operational capability, experience and competence, and other such qualifications as set forth in the Rules ~~and Procedures~~, when reviewing User Applications. The applicable standards include, but are not limited to, the following:

(i) the User applicant must have personnel with sufficient operational background and experience to ensure the ability of the User applicant to engage in cleared Eligible Securities Transactions in accordance with the Rules;

(ii) the User applicant must demonstrate its ability to satisfactorily communicate with the Corporation, and demonstrate that it has adequate books, records, and procedures to fulfill the User applicant's anticipated commitments to, and

to meet the operational requirements of, the Corporation, Members, and other Users, with necessary promptness and accuracy and to conform to any conditions and requirements which the Corporation reasonably deems appropriate for the protection of the Corporation, Members and other Users;

(iii) the User applicant must be in material compliance with all applicable requirements with respect to the maintenance of books and records under the Securities Exchange Act, or, for a User applicant not subject to the Securities Exchange Act, such requirements with respect to the maintenance of books and records under the regulatory regime to which the applicant is subject; and

(iv) the User applicant must not be subject to any other action or condition, the existence of which might adversely affect its ability to meet the standards of operational capability and experience and competence established by the Corporation.

(b) Minimum Operational Requirements for Users. Each applicant for User status must have and maintain written operational policies and procedures to ensure that it is able to perform operational functions as a User.

(i) The User applicant must have policies and procedures that document its ability to comply with its obligations in the following areas:

(A) daily trade settlement process with the Corporation;

(B) network and connectivity testing to the Corporation's applications and systems;

(C) disaster recovery and business continuity plans in accordance with Rule 313; and

(D) cyber security program and completion of the Corporation's cybersecurity attestation.

(ii) Each applicant for User status must have and maintain written policies and procedures addressing such additional and/or alternative operational requirements as the Corporation may prescribe.

(c) Members Responsible for Financial Responsibility of Users. The Corporation's minimum financial responsibility standards apply only to Members. A Member that authorizes a User is responsible for determining and enforcing minimum financial responsibility standards that apply to its authorized Users.

(d) Other Requirements. In addition to the operational requirements set forth in this Rule 307, an applicant for User status must meet any other requirements applicable to it, as set forth in the Rules ~~and Procedures~~, including any requirements to be able to use a specific Clearing Service as set forth in the ~~Chapter~~ Rules governing that Clearing Service. The Corporation reserves the right to impose additional risk-based requirements on Users at any time.

Rule 308. Approval Standards and Limitations

(a) Disqualification Criteria. In order to approve an applicant as a Member or User of the Corporation, the Corporation must have received no substantial information that would reasonably and adversely reflect on the applicant, or any person associated with the applicant as a partner, officer, or director, or any person occupying a similar status or performing similar functions ("Controlling Management"), if applicable, to such an extent that the applicant should be denied status as a Member or User of the Corporation. The Corporation, in its sole discretion, shall determine whether any of the following criteria should be the basis for denial of the application for Member or User status:

(i) the applicant or a member of its Controlling Management is subject to statutory disqualification, as defined in Section 3(a)(39) of the Securities Exchange Act, or an order of similar effect issued by a federal or state banking authority, or other examining authority or regulator, including a non-U.S. examining authority or regulator;

(ii) the applicant or a member of its Controlling Management has been responsible for (A) making a misstatement of a material fact or omitting to state a material fact to the Corporation in connection with its application to become a Member or User, or thereafter, or (B) a fraudulent act or violation of the Securities Act, the Securities Exchange Act, the Investment Company Act, the Investment Advisers Act or the Government Securities Act of 1986, as amended, or any rule or regulation promulgated thereunder;

(iii) the applicant or a member of its Controlling Management has been convicted within the ten (10) years preceding the filing of the application or at any time thereafter of (A) any criminal offense involving the purchase, sale or delivery of any security, or bribery, or perjury, or burglary, or conspiracy to commit any offense referred to in this ~~subparagraph~~ Rule 308(a)(iii), (B) the larceny, theft, robbery, embezzlement, extortion, fraudulent conversion, fraudulent concealment, forgery or misappropriation of funds, securities, or other property, (C) any violation of Sections 1341, 1342 or 1343 of Title 18 of the United States Code, or (D) any other criminal offense involving breach of fiduciary obligation, or arising out of the conduct of

business as a broker, dealer, investment company, adviser or underwriter, bank, trust company, fiduciary, insurance company, or other financial institution;

(iv) the applicant or a member of its Controlling Management has been permanently or temporarily enjoined or prohibited by order, judgment or decree of any court or other governmental authority of competent jurisdiction from acting as, a broker, dealer, investment company, adviser or underwriter, bank, trust company, fiduciary, insurance company, or other financial institution, or from engaging or in continuing any conduct or practice in connection with any such activity, or in connection with the purchase, sale or delivery of any security, and the enforcement of such injunction or prohibition has not been stayed;

(v) the applicant has been expelled or suspended from or had its participation terminated by a national securities association or exchange registered under the Securities Exchange Act, a self-regulatory organization or a corporation that engages in clearance and settlement activities or a securities depository, or has been barred or suspended from being associated with any member of such an exchange, association, organization, corporation, or securities depository;

(vi) if a User applicant, the nominating Member notifies the Corporation that it does not agree or no longer agrees to authorize the User; or

(vii) the applicant fails to meet any of the eligibility requirements set forth in Rule 302.

(b) Notification of Statutory Disqualification. Applicants must inform the Corporation if the applicant or any member of the applicant's Controlling Management is or becomes subject to statutory disqualification, as defined in Section 3(a)(39) of the Securities Exchange Act. The Corporation shall file a notice with the SEC not less than thirty (30) days prior to admitting any applicant to become a Member or User of the Corporation if the Corporation is aware that the applicant or a member of the applicant's Controlling Management is subject to a statutory disqualification.

(c) Failure to Meet Any Standards. If the Corporation determines that the applicant fails to meet any of the applicable financial and operational standards, but in the opinion of the Corporation, any one or more of such standards as applied to the applicant is unduly or disproportionately severe or the conduct of the applicant has been such as to make it unfair and not in the public interest nor consistent with the requirements of the Securities Exchange Act to reject such application to become a Member or a User, the Corporation may approve the application either unconditionally or on an appropriate temporary or other conditional basis. When approving an application on a conditional or temporary basis, the Corporation may

obtain adequate assurances of the applicant's financial responsibility and/or operational capability from the applicant as set forth in ~~paragraph~~ Rule 309(d) ~~of Rule 309~~.

(d) Corporation Limitations on Applications. Notwithstanding the foregoing, the Corporation may disapprove an application to become a Member or User or to use one or more additional services of the Corporation upon a determination by the Corporation that the applicant does not have adequate personnel, data processing capacity, or other operational or financial capacity at such time to perform its services for the applicant without impairing the ability of the Corporation to provide services for its existing Members and Users, as applicable, to assure the prompt, accurate, and orderly processing and settlement of securities transactions, or to otherwise carry out its functions.

Rule 309. Ongoing Financial and Operational Requirements

(a) Ongoing Compliance with Rule 306 and 307 Requirements. The requirements set forth in Rule 306 shall be continuing requirements for Members and the requirements of Rule 307 shall be continuing requirements for Users. Each Member and User shall maintain and enforce the policies and procedures it is required to have under ~~paragraph~~ Rule 306(c) ~~of~~for Rule ~~306 or paragraph~~ 307(b) ~~of Rule 307~~, respectively, or other Rules, as applicable, and must periodically review, and as necessary or appropriate revise, such policies and procedures and must otherwise comply with any applicable ongoing standards of financial responsibility, operational capability, and experience and competence that the Corporation shall establish, as it deems necessary or appropriate, with respect to such Participant type.

(b) Filings by Members. Each Member shall comply with ~~paragraphs~~ Rules 309(b)(i) ~~through~~ -(~~b~~viii)~~(v) of this Rule 309~~, as applicable. The Corporation shall also establish guidelines for the application of such standards. The Corporation shall review reports and other documents provided by Members pursuant to ~~paragraphs~~ Rules 309(b)(i) ~~through (b)(v) of this Rule 309~~ -(viii) and maintain copies of such reports in accordance with Rule 1306. Failure of any Member to file any documents required pursuant to ~~paragraphs~~ Rules 309(b)(i) ~~through~~ -(~~b~~viii)~~(v) of this Rule 309~~, as applicable, may be grounds for an administrative fine pursuant to Rule 1011.

(i) Broker-Dealer Member Filings. Every broker-dealer Member shall file with the Corporation a true and complete copy of Part I, Part II, Part IIA, and/or Part II CSE of the SEC Form X-17A-5 ("FOCUS Report"), if such Member is required to file Part I, Part II, Part IIA, and/or Part II CSE with its DEA pursuant to the rules and regulations of the SEC and/or the rules and procedures of such DEA, by the earlier of the time that such filing is made with its DEA or is required to be made with such DEA pursuant to the rules and regulations of the SEC and the rules and procedures of the DEA.

(ii) Bank Member Filings. Each bank that is a Member must submit to the Corporation a copy of the Member's CALL Report submitted to its appropriate regulatory agency, and to the extent not contained in the CALL Report (or to the extent that CALL Reports are not required to be filed), information containing each of the Member's capital levels and ratios, as such levels and ratios are required to be provided to the Member's appropriate regulatory agency, including a self-regulatory agency (or, if such Member's appropriate regulatory agency does not require such information, the Member's primary regulator's equivalent).

(iii) Futures Commission Merchant Member Filings. Each futures commission merchant that is a Member must submit to the Corporation a copy of the Member's 1-FR Filing submitted to the CFTC by the earlier of the time that such filing is made with the CFTC or is required to be made with the CFTC pursuant to the rules and regulations of the CFTC.

(iv) Unregistered Investment Pool Member Filings. Each Unregistered Investment Pool that is a Member must file a copy of the monthly certified statements of assets and liabilities on standard form signed by the Chief Financial Officer or equivalent of such Unregistered Investment Pool.

(v) Other Member Filings. Each Member that is not covered in ~~subparagraphs~~ Rules 309(b)(i)~~ through (b)~~-(iv) ~~of this Rule 309~~ must submit to the Corporation any and all financial reports that are required to be filed with its primary regulator, as identified to the Corporation. The Member must submit these reports to the Corporation within five (5) Business Days after such reports are provided to the Member's primary regulator. Notwithstanding the foregoing, such financial reports that are required to be prepared monthly must be submitted to the Corporation on monthly basis, and not less than quarterly, including as of the Member's fiscal year-end. Such monthly submissions shall include: (i) funding and liquidity information and changes to liquidity agreements, as requested by the Corporation; (ii) subordinated debt maturing within six (6) months; and (iii) such other information as requested by the Corporation. To the extent a Member is not required to file financial reports with a primary regulator, the Member must submit a report of its financial condition to the Corporation in a form substantially similar to Part II of the FOCUS Report on a monthly basis.

(vi) Annual Audited Financial Statements. A Member that is required to prepare annual audited financial statements by its appropriate regulatory agency is required to submit annual audited financial statements to the Corporation. Broker-dealer and futures commission merchant Members are required to submit annual

audited financial statements within sixty (60) days of their fiscal year-end. Other Members covered by Rule 309(b) are required to submit annual audited financial statements within ninety (90) days of their fiscal year-end.

(vii) Alternative Equivalent Financial Information for Certain Members. A Member that is not required to prepare annual audited financial statements by any regulatory agency is required to submit equivalent financial information to the Corporation within ninety (90) days of its fiscal year-end. The Corporation will work with such Member to agree upon what constitutes equivalent financial information.

(viii) Additional Reports. The Corporation may require any Member at any time to make more frequent capital computations, or to file with the Corporation the above reports on a more frequent basis, or to file such other reports or financial statements in such form or detail as may be prescribed by the Corporation.

(c) Due Diligence Reviews. The Corporation shall have the authority to conduct due diligence reviews of the financial responsibility and operational capability of any Member. In conducting such reviews, the Corporation may require a Member to furnish such information and to make such books and records available as will be sufficient in the opinion of the Corporation, to demonstrate the financial responsibility and operational capability of the Member, including without limitation its policies and procedures prescribed in ~~paragraph~~ Rule 306(c) ~~of Rule 306~~ and information and documents relating to its financial resources. In connection with such reviews, the Corporation may also receive records, reports, or other information as may be relevant to the matter under review from any other self-regulatory organization. The Corporation also may require a User to furnish such information and to make such books and records available as will be sufficient in the opinion of the Corporation to demonstrate the operational capability of the User, including without limitation its policies and procedures prescribed in ~~paragraph~~ Rule 307(b) ~~of Rule 307~~.

(d) Providing Adequate Assurances. The Member or User shall furnish to the Corporation such adequate assurances, as applicable, of its financial responsibility and operational capability as the Corporation may, at any time, deem necessary or advisable in order to protect the Corporation, Members, Users, creditors, or investors, as applicable, or to promote the prompt and accurate clearance, settlement, and processing of securities transactions. Upon the request of the Member or User, or otherwise, the Corporation may choose to confer with the Member or User before or after requiring the Member or User to furnish adequate assurances pursuant to this Rule 309.

(e) Types of Adequate Assurances. Adequate assurances of the financial responsibility or operational capability of the Member or User, as may be required pursuant to this Rule 309, may include, but shall not be limited to:

(i) additional reports by the Member or User of its financial or operational condition at such intervals and in such detail as the Corporation shall determine;

(ii) delivering securities to the Member or User only against permitted payments by the Member or User to the Corporation or to other Member(s) or other User(s);

(iii) prohibitions or limitations on the Member or User with respect to access to the services provided by the Corporation (whether generally or with respect to certain transactions), consistent with the requirements set forth in Rule 907; and

(iv) such other assurances as may be required pursuant to the Corporation's Rules ~~and Procedures~~.

(f) Confidentiality. Any information furnished to the Corporation pursuant to this Rule 309 or Rules 306 and 307 shall be held in the same degree of confidence as may be required by law or the rules and regulations of the appropriate regulatory organization having jurisdiction over the Member, User, or applicant.

Rule 310. List of Members and Users

The Corporation shall maintain a current list of Members and Users in published form available to Members and Users.

Rule 311. Notice of Material Changes or Changes to User Authorization, Member Status, or User Status

(a) Notice of Material Changes. Each Member and User shall give the Corporation prompt prior written notice (unless such notice is not practicable) of any material change in its form or organization, ownership structure, and/or business operations, including but not limited to:

(i) the merger, combination, or consolidation between the Member or User and another person;

(ii) the assumption or guarantee by the Member or User of all or substantially all of the liabilities of another person in connection with the direct or indirect acquisition of all or substantially all of the assets of such person;

(iii) the sale of a significant part of the Member's or User's business or assets to another person;

(iv) a change in the name, address, and/or form of business organization of the Member or User;

(v) a change in the direct or indirect beneficial ownership of twenty percent (20%) or more of the equity of the Member or User;

(vi) the institution of any proceeding against a Member or User, or the Member's or User's principal owner or related entity under federal bankruptcy laws or regulations, under state or federal tax laws or regulations, under state or federal securities or commodities and futures laws, rules, or regulations, under securities self-regulatory organization rules, or any other proceeding that would materially affect the Member's or User's ability to meet its obligations as a Member or User of the Corporation;

(vii) a material change in business operations, including new business operations undertaken;

(viii) if a Member, any material reduction in such Member's operating capital, including incurring a contingent liability that would materially affect the Member's capital or otherwise affect its ability to meet its obligations as a Member of the Corporation;

(ix) ~~If~~if a Member, any material reduction in assets under management or changes to key personnel (including portfolio managers), as applicable, with respect to Members that are Unregistered Investment Pools; and

(x) if a Member, the acquisition by, or the transfer to, a Member of any asset, business, and/or line of operation that generates a significant part of the Member's revenue~~;~~.

The Corporation shall conduct periodic reviews of all Members, including by reviewing the foregoing material changes listed in subsections (a)(i)-(x) of this Rule 311 for which the Corporation was notified of by Members.

(b) Furnishing Documents. Each Member and User shall furnish to the Corporation such documents in a timely manner with respect to any of the foregoing changes as the Corporation may from time to time require.

(c) Financial Standards Warning Notice. Each Member shall notify the Corporation immediately and shall promptly confirm such notice in writing if the Member notifies, is required to notify, or receives notice from, any regulatory organization of any

financial difficulty affecting the Member, or of any failure by the Member to be in compliance with the financial responsibility rules or capital requirements of any regulatory organization.

(i) Any notice, whether written or otherwise, from a regulatory organization informing a Member that it may fail to be in compliance with the financial responsibility rules or capital requirements of the regulatory organization unless it takes corrective action, or informing it that it has triggered any provision in the nature of an early warning provision contained in any such rule or regulation, constitutes a notice for purposes of ~~this paragraph~~ Rule 311(c) ~~of Rule 311~~.

(ii) For broker-dealer Members, a Member must notify the Corporation immediately by telephone and shall promptly confirm such notice in writing if:

(A) such Member's ~~Net Capital~~net capital becomes less than the greater of twenty million dollars ($20,000,000) or the minimum required by its primary regulator or if ~~Net Capital~~net capital declines by greater than 20% of the aggregate principal amount of such Member's satisfactory subordination agreements (other than such agreements which qualify as equity capital pursuant to Rule 15c3-1(d)) under the Securities Exchange Act exceeds seventy percent (70%) of such Member's debt-equity total;

(B) such Member's DEA has granted to the Member, pursuant to Rule 15c3-1(e)(2)(v)(e) under the Securities Exchange Act, an extension of any time period for resolving short securities differences under Rule 15c3-1(e)(2)(v)(A) under the Securities Exchange Act; or

(C) such Member has provided any notice as required by Rule 15c3-1(e)(1)(iv) under the Securities Exchange Act, in which case the Member shall also provide the Corporation with a copy of each such notice.

(iii) A Member registered as a futures commission merchant under Section 4f(a)(1) of the Commodity Exchange Act must notify the Corporation immediately by telephone, and shall promptly confirm such notice in writing, if the Member's adjusted ~~Net Capital~~net capital becomes less than the greater of twenty million dollars ($20,000,000) or the minimum adjusted ~~Net Capital~~net capital required by the Member's designated self-regulatory organization, as defined in the rules of the CFTC or if adjusted ~~Net Capital~~net capital declines by more than twenty (20) percent.

(iv) A Member that is a bank must notify the Corporation immediately by telephone, and shall promptly confirm such notice in writing, if the Member's CET1 capital falls below five hundred million dollars ($500,000,000); CET1 capital declines

by more than twenty (20) percent; or it fails to meet applicable regulatory standards with respect to leverage and capital ratios.

(v) A Member that is an Unregistered Investment Pool must notify the Corporation immediately by telephone, and shall promptly confirm such notice in writing, if , the Member's Net Assets fall below one hundred fifty million dollars ($150,000,000) or decline by more than ten (10) percent.

(vi) ~~(A)~~ Any Member must notify the Corporation immediately by telephone, and shall promptly confirm such notice in writing, of:

(A) ~~(B)~~ any violation on its part of any rules or regulations relating to financial responsibility of any regulatory organization to whose authority it is subject;

(B) ~~(C)~~ any notice, written or otherwise, received from such regulatory organization alleging a violation of any such rule or regulation, informing it that it may violate any such rule or regulation unless it takes corrective action, or informing it that it has triggered any provision in the nature of an early warning provision contained in any such rule or regulation; or

(C) ~~(D)~~ such other events as the Corporation may specify.

The Corporation shall conduct periodic reviews of all Members, including by reviewing the foregoing financial standards warning notices listed in subsections (c)(i)-(v) of this Rule 311 provided by a Member to the Corporation.

(d) Notice of Termination of User Authorization. A Member and/or User (as applicable) shall provide the Corporation with at least ten (10) Business Days' advance written notice ("Authorization Termination Notice") prior to either party electing to terminate an Authorization Agreement for any reason. The Corporation, in its sole discretion, may provide a shorter notification period. The Corporation must confirm termination of the Authorization Agreement in writing before such termination is effective. If a Member or User terminates an Authorization Agreement, the Corporation shall cease accepting Eligible Securities Transactions for the User's User Account as an authorized User of the Member on the date identified in the written notice.

(i) The Member's guarantee of financial performance for each User remains in effect ~~until~~as to any and all Eligible Securities Transactions submitted for the User's User Account associated with the authorizing Member prior to the effective date of termination of the Authorization Agreement. As such, the Member remains

responsible for meeting the obligations of the User in the event the User Defaults on any Eligible Securities Transaction submitted by the User prior to such termination.

(ii) Except to close the User's open positions in Eligible Securities Transactions at the Corporation, a User with no authorizing Member is not permitted to submit any new Eligible Securities Transactions for clearing until such User is authorized by another Member and such authorization is documented in a form acceptable to the Corporation. If another Member does not authorize the User within a reasonable time as determined by the Corporation, the Corporation will treat the User's status as withdrawn.

(e) Voluntary Withdrawal of Member or User Status. A Member or User may voluntarily withdraw their Member or User status pursuant to the procedures set forth in Rules 903(a)(i)-(ii), as applicable.

Rule 312. Authorized Representatives

(a) Designation of Authorized Representative. Every Member and User (acting through its registered investment advisor in the case of a registered investment company or unregistered investment pool) shall designate at least one individual as its representative, authorized in the name of such Member or User, to sign all instruments, to correct errors, and to perform such other duties as may be required pursuant to these Rules. This representative shall be authorized to transact all business requisite in connection with the operations of the Corporation and shall be capable of taking such action in a manner consistent with the daily time schedules and other requirements established by or pursuant to these Rules. If the representative of the Member or User is not a general partner in the Member's or User's firm, an officer of the Member's or User's corporation, or a managing member of the Member's or User's limited liability company, such representative shall, in the case of a firm, be authorized to act by written power of attorney, or in the case of a corporation, by resolution by the board of directors of such corporation, or in the case of a limited liability company, by resolution of the managing members of such limited liability company. Such power of attorney or resolution, as the case may be, shall be in such form as approved by the Corporation. In addition, if the representative is associated with another firm, such other firm must be authorized to act on behalf of the Member or User by power-of-attorney or other grant of authorization in such form as approved by the Corporation.

(b) Signatures. Members and Users shall file with the Corporation the signatures of the representative(s) of such Member or User (including partners and officers) who are authorized to sign certificates, checks, agreements, receipts, orders, and other papers necessary for conducting business with the Corporation, together with an executed copy of the powers of attorney, resolutions, or other instruments giving such authority.

(c) Signature Changes. Any Member or User who has given a person a power of attorney or other authorization to transact business with the Corporation shall, immediately upon the withdrawal, retirement, resignation, or discharge of such person or upon the revocation of their power to act, give written notice to the Corporation.

Rule 313. Disaster Recovery and Business Continuity

(a) Need for Procedures. Each Participant shall maintain written disaster recovery and business continuity policies and procedures designed to ensure their ability to continue performing operational functions notwithstanding the occurrence of a significant internal or external disruption.

(b) Specific Procedures. The following areas must be addressed in the Participant's policies and procedures. The Corporation may consider the Participant's business, capabilities and product mix when evaluating the Participant's compliance with the requirements of this Rule 313:

(i) Policies and procedures to enable the Participant to continue to operate during periods of financial and operational stress or to transfer accounts to another fully operational Participant with minimal disruption to the Corporation.

(ii) Maintaining and, at the request of the Corporation, providing accurate and complete information relating to its key personnel. Key personnel shall be identified to the Corporation at the time of its approval as a Member or User, and such Member or User shall inform the Corporation promptly upon any subsequent changes to its key personnel.

(iii) The Corporation may prescribe additional and/or alternative requirements for Participants to comply with this Rule 313.

Rule 314. Members and Users Bound by Actions Taken

Each Member and User shall be bound by any action of the Corporation taken pursuant to the By-Laws~~,~~ and Rules~~, and Procedures~~ of the Corporation.

Rule 315. Anti-Money Laundering Compliance Program

Each Member and User, as applicable, shall develop and implement a written compliance program approved in writing by senior management reasonably designed to achieve and monitor such Member's or User's compliance with, as applicable, (1) anti-money laundering, know-your-customer, and sanctions requirements, including the Bank Secrecy Act (31 U.S.C. § 5311 et seq.), the International Emergency Economic Powers Act (50 U.S.C. §

1701 et seq.) ("IEEPA"), the Trading with the Enemy Act (50 U.S.C. App. § 1 et seq.) ("TWEA"), and the executive orders and regulations issued pursuant thereto, including the regulations issued by the Department of the Treasury and, as applicable, the CFTC; and (2) the Foreign Account Tax Compliance Act (26 U.S.C. § 1471 et seq.) and the executive orders and regulations issued pursuant thereto.

CHAPTER 4. GUARANTY FUND AND DEFAULT MANAGEMENT

Rule 401. Maintenance and Purpose of the Guaranty Fund

(a) Maintenance. The Corporation shall maintain a Guaranty Fund to which each Member shall contribute, as provided in this Chapter 4. Only Members shall be required to contribute to the Guaranty Fund.

(b) Purpose. In accordance with the process set forth in Rule 406, a Member's deposit to the Guaranty Fund may be used to cover losses incurred by the Corporation as a result of a Member Default, regardless of the cause of the Default.

Rule 402. Amount of Contributions

(a) Amount. The Guaranty Fund shall be maintained in an amount, determined by the Corporation using its stress test methodology and in accordance with the ~~Corporation's Procedures~~Rules, at least equal to the largest theoretical loss to the Corporation in excess of initial margin resulting from the ~~default~~Default of two (2) Member Families~~.~~ (the "cover two standard"). To determine the largest theoretical loss to the Corporation resulting from the Default of two (2) Member Families, the Corporation measures the shortfall between the stress loss and collateral on deposit for initial margin (the "largest net debtor amount") at the Member Family-level, covering (as applicable) Member Accounts and the User Accounts of a predefined number of Users with the largest credit exposures at each Member. The Corporation may maintain the Guaranty Fund size at an amount larger than the cover two standard (*e.g.*, by including a buffer), based on the Corporation's assessment of the cover two standard amounts, volatility in the market or other reason, in order to better ensure that the Guaranty Fund meets the cover two standard between official calculations and to prevent significant fluctuations of Required Guaranty Fund Contributions.

(b) Member Contribution. Each Member shall make a Required Guaranty Fund Contribution. ~~A~~The Corporation must receive a new Member's initial Required Guaranty Fund Contribution before such Member is eligible to commence clearing any Eligible Securities Transactions with the Corporation. The Corporation shall determine each Member's Required Guaranty Fund Contribution using fair and risk-based measures. Specifically, a Member's Required Guaranty Fund Contribution will be sized based on the Member's proprietary transactions and transactions of Users authorized by the Member. The Required Guaranty Fund Contribution, as adjusted from time to time, shall consist of the greater of:

(i) ten million dollars ($10,000,000), which is the minimum amount of cash or securities that a Member is required to contribute to the Guaranty Fund~~, as determined by the Corporation and set forth in subparagraph (c)(i) of Procedure 4-1~~; or

(ii) the amount a Member is required to contribute to the Guaranty Fund based on the Member's proportionate share of the aggregate Required Guaranty Fund Contribution, considering its proprietary transactions and transactions of Users authorized by the Member and calculated by the Corporation in accordance with formulae adopted by the Corporation from time to time. Prior to a Member commencing to use a Clearing Service, its proportionate share of the aggregate Required Guaranty Fund Contribution for such Clearing Service is zero.

The Corporation will calculate amounts pursuant to Rule 402(b)(ii) for each Member using a formula that is based on the Member's relative: (i) largest net debtor amount for the Member Family; and (ii) gross notional outstanding of the Member Family in Eligible Securities Transactions cleared by the Corporation. These amounts shall be calculated based on the aggregate Required Guaranty Fund Contribution less the Corporation's required contribution available to discharge a Defaulting Member's losses and liabilities as described in Rule 406(a)(iii).

(c) Default Assessment.

(i) If the sum of the Corporation's ~~loss or liability~~losses or liabilities arising from a Member Default exceeds 50% of the amount of funds available to the Corporation for discharging such losses and liabilities pursuant to ~~subparagraphs~~ Rules 406(a)(ii)~~ through (a)~~ (iv)~~ of Rule 406~~, the Corporation may, in its sole discretion, impose ~~an assessment (~~"~~a~~ Default Assessment~~"~~. That is, the Corporation may issue an advance demand to non-Defaulting Members to satisfy Default Assessments up to the amount that would be necessary to discharge losses and liabilities arising from a Member's Default.

(ii) ~~).~~ Each ~~non-defaulting~~non-Defaulting Member shall be assigned its proportionate share of the total Default Assessment amount based on each Member's Required Guaranty Fund Contribution. The maximum Default Assessment for each Member with respect to each Cooling Off Period will equal two-hundred (200) percent of the Member's Required Guaranty Fund Contribution then in effect at the commencement of the Cooling Off Period.

(iii) Any Member that does not satisfy a Default Assessment may be declared to be in Default by the Corporation pursuant to Rule 902.

(iv) The Default Assessment for each Member shall be calculated by the Corporation and reported to the individual Members in the Guaranty Fund statement, as set forth in Rule 402(d). During the hours in which the Federal Reserve's wire transfer system ("Fedwire") is in operation, non-Defaulting Members must pay such

Default Assessment amount to the Corporation prior to the close of Fedwire on such day; provided, however, that all amounts assessed within one (1) hour prior to the close of Fedwire must be paid to the Corporation no later than one (1) hour after the Fedwire next opens.

(d) The Corporation shall recalculate the aggregate Required Guaranty Fund Contributions and Default Assessments on at least a monthly basis, as well as each Member's Required Guaranty Fund Contribution and its maximum Default Assessment. The Corporation may recalculate such requirements more frequently than monthly, including based on the Corporation's daily stress testing results pursuant to Rule 402(e), as appropriate, for risk management purposes including but not limited to adherence to the cover two standard, or if the potential loss calculated pursuant to ~~paragraph~~ Rule 402(a) ~~of this Rule 402~~ changes significantly, or if the Corporation, in its sole discretion, determines it is necessary to protect the financial integrity of the Corporation. The Corporation will keep a record of such calculations in accordance with Rule 17a-1 under the Securities Exchange Act.

(i) Following any recalculation of the Guaranty Fund, the Corporation shall provide a Guaranty Fund statement to each Member showing the detail of its Required Guaranty Fund Contribution and its maximum Default Assessment. The Guaranty Fund statement shall specify the amount of any increase in the Required Guaranty Fund Contribution or any excess in the then-existing Required Guaranty Fund Contribution amount. A Member shall make any additional Required Guaranty Fund Contribution within two (2) Business Days, or sooner as required by the Corporation, after delivery of the Guaranty Fund ~~statement and any reported excess may be withdrawn.~~Statement (the "Required Guaranty Fund Contribution Deadline"), unless the Corporation, in its sole discretion, shortens or extends the Required Guaranty Fund Contribution Deadline. Guaranty Fund contribution amounts posted to the Corporation in excess of a Member's Required Guaranty Fund Contribution shall be repaid upon the request of such Member; provided, however, that the Corporation, in its sole discretion, may withhold such excess if the Member has any unmet or outstanding payment obligation to the Corporation.

(ii) If the Corporation determines that an increased Required Guaranty Fund Contribution is required from a Member due to a material change in the form or organization, ownership structure, or business operations of such Member, as set forth in Rule 311, the Corporation shall notify such Member of the increased requirement and the Member shall make any Required Guaranty Fund Contribution within two (2) Business Days following delivery of such notice, or sooner as required by the Corporation.

(e) The Corporation will conduct stress testing of its total financial resources once each day using standard predetermined parameters and assumptions.

(f) The Corporation will conduct a comprehensive analysis on at least a monthly basis, or more frequently as determined necessary by the Corporation, of a rotating subset of existing stress testing scenarios, models, and underlying parameters and assumptions, and consider whether such results warrant modifications to better ensure that the relevant inputs remain appropriate for determining the Corporation's required financial resources in light of current and evolving market conditions. The results of such periodic and ad hoc analyses will be used to evaluate the adequacy of, and adopt appropriate adjustments to, the Corporation's margin methodology, model parameters, models used to generate clearing or Guaranty Fund requirements, and other relevant aspects of the Corporation's risk management policies and procedures. Changes to the methodology for sizing the Guaranty Fund that constitute substantive changes to the Corporation's risk management program are presented to the Risk Management Committee for review and approval; provided that, if the Risk Management Committee determines any such changes will have a significant impact on the Corporation's risk profile, such changes are subject to approval of the Board upon recommendation of the Risk Management Committee.

Rule 403. Form of Contributions and Substitution

(a) Required Contribution. Each Member's Required Guaranty Fund Contribution shall be made in U.S. Dollar cash or U.S. Treasury securities with remaining maturities of less than ten (10) years. Any Default Assessment shall be met in U.S. Dollar cash unless otherwise permitted by the Corporation. The Corporation may determine, in its sole discretion, to require Members to satisfy their Required Guaranty Fund Contribution with a minimum amount or proportion of cash.

(b) Substitution. The Corporation may instruct a Member that is, or has an Affiliate that is, a U.S. Government Securities Broker-Dealer within 60 minutes of receipt of the Corporation's substitution instruction, to deposit U.S. Dollar cash in exchange for all U.S. Treasury securities then on deposit with the Corporation in satisfaction of the Member's Required Guaranty Fund Contribution. Such instructions will be made during the hours in which the Federal Reserve's securities wire transfer system is in operation, provided, however that if such directions are given less than sixty (60) minutes prior to the close of the Federal Reserve's securities wire transfer system, the substitution required hereunder shall be made within sixty (60) minutes after the Federal Reserve's securities wire next opens. To the extent that a Member(s) fails to provide U.S. Dollar cash within the deadlines specified above, the Corporation may debit U.S. Dollar cash from that Member's bank account in the amount of

the Member's non-U.S. Dollar cash Guaranty Fund Contribution then on deposit with the Corporation.

(c) Securities Sale to Meet Obligations from Outstanding Exposure Settlement. The Corporation may offset its cash Outstanding Exposure Settlement obligations to any Member that is, or has an Affiliate that is, a U.S. Government Securities Broker-Dealer, up to the amount of that Member's Required Guaranty Fund Contribution, by selling U.S. Treasury securities valued based on the prior day's closing prices with prevailing Corporation haircuts applied in exchange for cash from the Member. The cash received by the Corporation from the Member shall be in the form of the Outstanding Exposure Settlement obligation owed by the Corporation, which shall deliver the purchased U.S. Treasury securities to the Member.

Rule 404. Deposit and Investment of Cash Contributions; Deposit of Securities

(a) Cash. Any cash posted to the Corporation pursuant to Rules 402 and 403 may be partially or wholly invested in U.S. government obligations or any other interest-bearing investments which provide safety and liquidity of the principal invested, as determined by the Corporation. To the extent not so invested, such cash funds shall be deposited in an account in the name of the Corporation in a depository institution or institutions selected by the Corporation. Any investment income or losses to principal from cash deposits to the Guaranty Fund shall accrue to the Corporation, unless otherwise specified by the Corporation and set forth in ~~the Procedures~~these Rules. The Corporation shall maintain a list of U.S. government obligations or any other interest-bearing investments in which cash in the Guaranty Fund may be invested, and the amounts invested at any given time.

(b) Securities. Securities posted for Guaranty Fund purposes shall be deposited by the Member, and held by the Corporation, in the Corporation's name in a depository institution or institutions selected by the Corporation. Such securities will be deemed to be posted with the Corporation at the time the Corporation confirms receipt. All interest, dividends, or gain received or accrued on such securities prior to any sale or negotiation thereof, and any proceeds from the maturity of the securities received by the Corporation shall belong to the Member that deposited such securities.

Rule 405. Default Management Process

(a) General.

A Member Default or User Default will be managed in accordance with the Corporation's Rules ~~and Procedures~~. In managing a Member Default or User Default, the Corporation may sell any securities without notice and apply the proceeds as set forth in these

Rules ~~and the Procedures~~. The Corporation's default management process may involve the Corporation's consultation with third parties and may involve these third parties acting as agents on the Corporation's behalf to manage the Member Default or User Default. The Corporation, or any third party acting as its agent, may liquidate and/or transfer the margin associated with the Eligible Securities Transactions of the defaulting Participant.

(b) Member Default.

(i) In the event of a Member Default, the Corporation will initiate the close-out process described in these Rules for the Member Account of a Defaulting Member. Eligible Securities Transactions of the Defaulting Member, inclusive of Cash Treasury Transactions and Repo Transactions, within the Member Account may be aggregated, in the Corporation's sole discretion, for default management purposes.

(ii) The Corporation will apply the financial resources described in Rule 406(a), in the order provided in Rule 406(a), to the Defaulting Member's obligations owed to the Corporation.

(iii) For User Accounts of a Defaulting Member, the Corporation will work with its non-Defaulting Members to attempt to transfer these accounts of non-Defaulting Users, pursuant to Rule 412, as soon as practicable; however, the Corporation may liquidate any open positions of User Accounts of a Defaulting Member, in its sole discretion, pursuant to Rule 412.

(c) User Default.

(i) Pursuant to Rule 1507(b), in the event of a User Default, the Corporation will notify any authorizing Members of such User to provide those Member(s) the opportunity to manage the User Default by satisfying its obligations in full, including by liquidating its portfolio on behalf of the Corporation. The Members so notified should respond to the Corporation within the period prescribed by the Corporation. Any Member that does not respond within the prescribed period would be deemed to have declined to participate in managing the given User Default. If a Member(s) agrees to liquidate the Defaulting User's portfolio on behalf of the Corporation, such Member(s) will be directly and primarily responsible for meeting the financial and settlement obligations to the Corporation with respect to open positions of the Defaulting User authorized by that Member.

(ii) If the Members (or a subset of those Members) decline, or are deemed to have declined, to participate in managing the User Default, the Corporation will initiate the close-out process described in the Corporation's Rules for the User Account

of the Defaulting User. Eligible Securities Transactions of the Defaulting User, inclusive of Cash Treasury Transactions and Repo Transactions, across all authorizing Members of a Defaulting User that have elected not to participate in managing the default of such User, may be aggregated, in the Corporation's sole discretion, for default management purposes. For avoidance of doubt, notwithstanding a Member's decision to participate in managing the User Default, the Member's guarantee of the User's financial performance to the Corporation remains in effect until finalization and discharge of all losses associated with the User Default.

(iii) The Corporation will apply the financial resources described in Rule 406(b), in the order provided in Rule 406(b), to the Defaulting User's obligations owed to the Corporation.

(d) Close-out process for the positions of a Defaulting Member or Defaulting User.

(i) If time permits, as soon as reasonably practicable after the Member Default or User Default, the Corporation may, pursuant to Rule 1507(c), identify the contra positions of the non-Defaulting Member and non-Defaulting Users to the positions of the Defaulting Member or Defaulting Users. The Corporation may notify such potentially impacted non-Defaulting Members and/or non-Defaulting Users with open positions that they may submit a close-out request to the Corporation within a period prescribed by the Corporation from the time of notification. Any impacted non-Defaulting Member or non-Defaulting User that does not respond within the prescribed period would be deemed to have declined to close-out such positions. Any Member or User must notify the Corporation of any loss of cost incurred in connection with the close-out and such Member or User must ensure that it takes reasonable efforts to effect the close-out at prevailing market prices.

(ii) With respect to any positions that have not been terminated or closed out pursuant to Rules 1507(b) or (c), the Corporation, in its sole discretion, may take the actions pursuant to Rule 1507(e) to manage the Member or User Default, including purchasing or selling Eligible Securities pursuant to Rule 407 or conducting a competitive auction pursuant to Rule 1508.

(A) Pursuant to Rule 407, depending on the prevailing facts and circumstances, including, but not limited to, prevailing market liquidity, the size of the portfolio of the portfolio of the Defaulting Member or Defaulting User, and the time when obligations become due with respect to the portfolio of the Defaulting Member or Defaulting User, the Corporation may enter into Paired Transactions, as the term is defined in Rule 407, to deliver or purchase securities

on the applicable settlement date, including for the date of the Default or for Business Days following the date of the Default.

(B) Pursuant to Rule 1508, depending on the prevailing facts and circumstances, including, but not limited to, prevailing market liquidity and the size of the portfolio of the Portfolio of the Defaulting Member or Defaulting User, the time when obligations become due with respect to the portfolio of the Defaulting Member or Defaulting User, and risk capacity of potential Bidders, the Corporation may conduct competitive auction(s), in which it may invite non-Defaulting Members or non-Defaulting Users to participate. Competitive auctions may be conducted in any format determined appropriate by the Corporation, with reference to prevailing facts and circumstances.

(e) Managing a Default with Respect to a Specific Clearing Service and Across Clearing Services.

(i) If a Defaulting Member or Defaulting User has obligations with respect to open Eligible Securities Transactions cleared in more than one Clearing Service, the Corporation may in its discretion treat the Eligible Securities Transactions separately by Clearing Service and/or on a combined portfolio basis for purposes of hedging positions and liquidating open positions including, via any competitive auction.

(ii) In the event a Default by a User is followed by a Default of the User's authorizing Member, the Corporation may, subject to applicable law, in its discretion treat the Eligible Securities Transactions of the Defaulting Member and the Defaulting User separately and/or on a combined portfolio basis in whole or in part for purposes of hedging positions and liquidating open positions, including via any competitive auction.

(iii) Additional procedures related to managing a Default of a Member or User may be set forth in the Rules specific to a Default affecting Eligible Securities Transactions in a particular Clearing Service.

(f) Notice of Member or User Default. As set out in Rule 905, the Corporation will notify Members and Users, via an Advisory, if it ceases to act for a Member or User, either with respect to specific transactions or more generally.

(g) Updated Guaranty Fund Statements. Following any charges against the Guaranty Fund due to Default by a Member, the Corporation will provide updated Guaranty Fund Statements to Members. During the hours in which the Fedwire is in operation, non-Defaulting Members must deposit the necessary amount to restore its Required Guaranty Fund

Contribution pursuant to Rule 402(c) prior to the close of Fedwire on such day; provided, however, that all amounts required to be deposited within one (1) hour prior to the close of Fedwire must be paid to the Corporation no later than one (1) hour after the Fedwire next opens.

Rule 406. Use and Application of Guaranty Fund, Margin and Other Financial Resources

(a) Member Default. In the event the Head of the Corporation or their designee declares a Member Default:

(i) The Corporation may hedge all or a portion of the open positions within the Defaulting Member's Member Account(s), and may sell, transfer, or offset positions within such Member Account(s) with one or more non-defaulting Participants, as the Corporation deems appropriate.

(ii) The margin posted to the Corporation in respect of open transactions in the Defaulting Member's Member Account(s), as well as any other assets of the Defaulting Member held by, pledged to, or otherwise available to the Corporation, including the Defaulting Member's Required Guaranty Fund Contribution but excluding any assets posted as margin to any User Account of any User authorized by the Defaulting Member (except in the limited circumstance provided in ~~paragraph~~ Rule 406(c) ~~of this Rule 406)~~, shall be applied by the Corporation to discharge any losses or liabilities to the Corporation from the Member Default. The Corporation will have a claim against a Defaulting Member in the amount of any loss or liability to the Corporation arising from the Member Default that exceeds the value of the Member's assets available to the Corporation.

(iii) If application of the funds pursuant to ~~subparagraph~~ Rule 406(a)(ii) ~~of this Rule 406~~ does not fully discharge the Corporation's losses or liabilities associated with the Member Default, the Corporation shall apply the funds constituting its corporate contribution of $50 Million, up to the amount necessary to fully discharge any loss or liability to the Corporation from the Member Default but not exceeding the amount of the corporate contribution in effect at the time of the Member Default.

(iv) If the sum of the Corporation's loss or liability exceeds the sum of the Defaulting Member's assets available to the Corporation and the Corporation's corporate contribution pursuant to ~~subparagraphs~~ Rules 406(a)(ii) ~~and (a)~~ (iii) ~~of this Rule 406~~, non-Defaulting Members' Required Guaranty Fund ~~contributions~~Contributions will be applied up to the amount necessary to fully discharge any loss or liability from the Member Default. The charges made against the

non-Defaulting Members' Required Guaranty Fund Contributions will be allocated pro rata to each non-Defaulting Member based on the amount of each such Member's Required Guaranty Fund Contribution at the time of the Member Default. The Corporation shall promptly notify each Member of its allocated amount.

(v) If the sum of the Corporation's loss or liability exceeds the amount of funds available to the Corporation pursuant to ~~subparagraphs~~ Rules 406(a)(ii)~~ through (a)~~ (iv)~~ of this Rule 406~~, the Corporation may impose a Default Assessment pursuant to ~~paragraph~~ Rule 402(c)~~ of Rule 402~~.

(b) User Default. In the event the Head of the Corporation or their designee declares a User Default:

(i) The Corporation may hedge all or a portion of the open positions within the Defaulting User's Independent User Account(s) or Supported User Account(s), as applicable, and may sell, transfer, or offset positions within the Defaulting User's User Account with one or more non-defaulting Participants, as the Corporation deems appropriate.

(ii) Posted Margin and Other Assets

(A) Independent User. The margin posted to the Corporation in respect of open transactions in a Defaulting User's Independent User Account, as well as any other assets of the Independent User held by, pledged to, or otherwise available to the Corporation on behalf of that Independent User, shall be applied by the Corporation to discharge the losses and liabilities associated with that User Default.

(B) Supported User. The margin posted to the Corporation in respect of open transactions in a Defaulting User's Supported User Account shall be applied by the Corporation to discharge such Supported User's ~~obligations~~losses and liabilities to the Corporation. If such application of funds does not fully discharge the Defaulting Supported User's obligations to the Corporation, the Corporation may apply any collateral in excess of the margin requirement posted to it for the Supported User of the authorizing Member that such Member has not designated to the Corporation as Funded Supported User Margin for any other Supported User Account or Supported User Margin for any other Supported User Account in the Member's most recent collateral value report submitted to the Corporation.

(iii) If the application of funds pursuant to ~~subparagraph~~ Rules 406(b)(ii)(A) or (B), as applicable, ~~of this Rule 406~~ does not fully discharge the Corporation's losses or liabilities associated with the User Default, the Corporation shall require the Member(s) authorizing the User, solely with respect to the open positions in each Defaulting User's Independent User Account or Supported User Account that such Member has authorized, to provide funds sufficient to fully discharge the losses and liabilities to the Corporation associated with the User Default in the Account(s) it has authorized. If the Member(s) fails to provide sufficient funds to the Corporation to fully discharge such losses and liabilities, within the time specified by the Corporation, the Corporation may declare the Member in Default pursuant to Rule 902 and apply the provisions set forth in ~~paragraph~~ Rule 406(a) ~~of this Rule 406~~ with respect to the Member's obligation to the Corporation arising from the User Default.

(iv) The Corporation will have a claim jointly and severally against the Defaulting User and the Member(s) authorizing the User, solely with respect to the open positions in each Defaulting User's Independent User Account or Supported User Account that such Member has authorized, for any losses or liabilities that exceed the amount of the assets available to the Corporation pursuant to ~~subparagraph~~ Rule 406(b)(ii) ~~of this Rule 406~~.

(c) Member Default in Relation to a Defaulting User. The provisions of ~~paragraph~~ Rule 406(b) ~~of this Rule 406~~ shall not be construed to limit the Corporation's authority to declare a Member that authorized the Defaulting User to be in default for the Member's failure to fulfil its obligations with respect to such User. Without limiting the generality of the foregoing, the Corporation may declare a Member to be in default pursuant to ~~paragraph~~ Rule 902(a)(ii) ~~of Rule 902~~ for the Member's failure to meet its obligations under Rules 501 and 506 to post margin or pay Outstanding Exposure Settlement, respectively, for any Supported User Account (an "affected Supported User Account" and the User, an "affected Supported User"). In the event the Corporation declares a Member Default on such basis, the margin posted to the Corporation in respect of open transactions in a particular affected Supported User Account shall be applied by the Corporation to discharge the obligations of the affected Supported User to the Corporation for that affected Supported User Account.

(d) Continuing Obligations of Defaulting Members and Defaulting Users. Where the Corporation ceases to act for a Member or User pursuant to Rule 901 or Rule 902, the Defaulting Member or Defaulting User, as applicable, remains responsible for discharging any obligations it incurred prior to such decision to cease to act.

(e) No Interfering Action. No Member or User shall take any action, including but not limited to obtaining a court order, that would interfere with the ability of the Corporation to apply a Member's or User's assets and funds in accordance with this Rule 406.

Rule 407. Asset Purchase and Sale

(a) If the Corporation deems it appropriate, in its sole discretion, it may purchase or sell Eligible Securities, including through a third-party agent, to obtain cash or securities necessary to satisfy its settlement obligations in accordance with these Rules.

(b) No Member or User shall take any action, including but not limited to obtaining a court order, that would interfere with the ability of the Corporation to purchase or sell Eligible Securities.

(c) Paired Transactions.

(i) Paired Sale. The Corporation, in its sole discretion, may pair an asset sale with a reverse ~~repo transaction~~Repo Transaction involving the same security or securities, identified by CUSIP, that are subject to the asset purchase or sale to permit the Corporation, against cash payment, to deliver such securities by the applicable settlement date of the sale.

(ii) Paired Purchase. The Corporation, in its sole discretion, may pair an asset purchase with a ~~repo transaction~~Repo Transaction for cash to permit the Corporation, against delivery of securities, to purchase such securities by the applicable settlement date of the sale.

(iii) The pairs of transactions set forth in ~~subparagraphs~~ Rules 407(c)(i) ~~and (c)~~ (ii) ~~of this Rule 407~~ shall each be referred to as a "Paired Transaction."

Rule 408. Non-Committed Repo Financing Lines

(a) Pursuant to Rule 305(a)(vii), all Members must execute a master repurchase agreement with the Corporation, which will govern all non-committed Repo Transactions between the Corporation and the Member. The Corporation may also, in its sole discretion, sign master repurchase agreements with entities that are not Members for the purposes of establishing additional non-committed repo financing lines. If the Corporation deems it appropriate, in its sole discretion, in order to obtain financing necessary to satisfy its settlement obligations set forth in these Rules, the Corporation may enter into ~~repo transactions~~Repo Transactions involving Eligible Securities intended to be delivered to a Defaulting Member or Defaulting User and those Qualified Margin Securities of the Defaulting Member or Defaulting User with any market participant so willing, and no Member or User shall take any action to

interfere intentionally with such ~~repo transactions.~~Repo Transactions. Transaction terms for non-committed Repo Transactions will be negotiated and set with the counterparty at the time of the transaction. Each Member that has entered into such master repurchase agreement shall periodically test repurchase transactions with the Clearing House when requested by the Clearing House.

(b) Any obligations under ~~repo transactions~~Repo Transactions created by the Corporation pursuant to ~~paragraph~~ Rule 408(a) ~~of this Rule 408~~ in or with respect to any such Eligible Securities may be to obtain an amount greater, and may extend for a period of time longer, than the obligation of any Member or User to the Corporation relating to such Eligible Securities.

Rule 409. Committed Repo Financing Lines

The Corporation may enter into master repurchase agreements with an entity or multiple entities, including any depository institution, if the Corporation, in its sole discretion, deems it necessary or desirable to obtain and maintain a committed repo financing line. The collateral pledged to such committed repo financing lines may include Eligible Securities intended to be delivered to a Defaulting Member or a Defaulting User and Qualified Margin Securities of a Defaulting Member or a Defaulting User. The Corporation shall be entitled to create, and no Member or User shall take any action to interfere intentionally with the creation of~~,~~ security interests in Eligible Securities or Qualified Margin Securities in favor of such entities from which the Corporation, in its sole discretion, deems it necessary or desirable to obtain and maintain such financing. Transaction terms of such committed Repo Transactions will be established in accordance with the terms of the committed master repurchase agreement. The Corporation will conduct a test with any committed repo counterparty on at least an annual basis to affirm operational readiness. In the case of a Member Default or a User Default, any costs incurred by the Corporation in arranging financing pursuant to this Rule 409 shall be considered costs associated with the liquidation of collateral.

Rule 410. Capped Liquidity Facility

(a) CLF MRA.

(i) ~~(a)~~ Each Member is required to enter into a CLF MRA with the Corporation on terms substantially similar to those set out by the Corporation, which will govern all CLF Event Transactions between the Member, as buyer of Eligible Securities, and the Corporation, as seller of Eligible Securities. Eligible Securities in the context of a CLF Event Transaction, under this Rule 410, may include collateralizing such CLF Event Transaction with Qualified Margin Securities pledged by the Defaulting Member or Defaulting User, collateral deposited to the Guaranty

Fund, and Eligible Securities the Corporation receives from non-defaulting Members and non-Defaulting Users that had been intended to be delivered to the Defaulting Member or Defaulting User. In the event of a Member Default or a User Default and where the Corporation's standard sources of liquidity are determined by the Corporation, in its sole discretion, to be insufficient or likely to be insufficient to meet the Corporation's liquidity needs, the Corporation may declare a CLF Event, notify its Members, and enter into one or more CLF Event Transactions with applicable Member(s) of its choosing.

(ii) The CLF MRA shall be in the form established by the Corporation, which form may be based on SIFMA Master Repurchase Agreement with modifications, and shall incorporate the following terms:

(A) Each and all CLF Event Transactions shall only be initiated by the Corporation and shall only be terminable by the Corporation in accordance with this Rule 410 unless otherwise provided in paragraph (F) below;

(B) On any Business Day prior to the CLF Event Transaction Termination Date, if (x) the Corporation has executed a trade liquidating the financed securities, or (y) the Corporation has obtained liquidity through other available liquid resources, the Corporation may, by notice to the buyer, partially or fully terminate any CLF Event Transaction, by repurchasing some or all of the Eligible Securities sold by the Corporation to the buyer;

(C) Each CLF Event Transaction may be rolled daily at the discretion of the Corporation and will remain open until (x) the contractual settlement date of a trade liquidating the financed securities, (y) such time that the Corporation has obtained liquidity through its other available liquid resources, or (z) the occurrence of the CLF Event Transaction Termination Date. CLF Event Transactions can have a term of up to 30 days and the Corporation, at its sole discretion, can extend the CLF Event Transaction by up to an additional 30 days;

(D) It shall be an "Event of Default" (as defined in the CLF MRA) with respect to the buyer under a CLF MRA if the Corporation ceases to act for such Member pursuant Rule 901 or 902;

(E) There shall be no "Events of Default" (as defined in the CLF MRA) with respect to the Corporation as the seller other than a Corporation Default within the meaning of Rule 714; and

(F) If (x) a Corporation Default has occurred during the term of a CLF Event Transaction or (y) the Corporation has not repurchased all of the Eligible Securities under a CLF Event Transaction by the CLF Event Transaction Termination Date, the buyer of the CLF Event Transactions may exercise the rights of a "non-defaulting party" under the CLF MRA as if an "Event of Default" with respect to the seller had occurred.

(b) Declaration of a CLF Event.

(i) In the event that the Corporation ceases to act for a Member or User pursuant to Chapter 9 of the Rules and determines, in its sole discretion, that any or all steps set forth in Rules 407 (Asset Purchase and Sale), 408 (Non-Committed Repo Financing Lines) and 409 (Committed Repo Financing Lines) are insufficient or likely to be insufficient to meet the Corporation's liquidity needs, the Head of the Corporation (or in the event the Head of the Corporation is unavailable, the Head of Risk, or if the Head of Risk is unavailable, a duly authorized delegate) may declare a CLF Event pursuant to this Rule 410. Upon such declaration, the following shall occur:

(A) ~~(b) If the~~The Corporation ~~declares a CLF Event, pursuant to these Rules and applicable Procedures, the Corporation~~ shall notify all Members via Advisory of the declaration of the CLF Event and that the Corporation may enter into ~~a~~one or more CLF Event ~~Transaction~~Transactions with one or more non-Defaulting Members~~.~~ on the terms specified in the CLF MRA;

(B) The Corporation will notify each such Member of the terms under which the Member will enter into a CLF Event Transaction with Corporation, including the amount, rate, description of the Eligible Securities;

(C) The Corporation will then initiate one or more CLF Event Transaction(s) with each such Member at an aggregate purchase price up to the maximum amount allocated to such Member ("Allocated Capped CLF Amount");

(D) Pursuant to the terms of the CLF MRA, each CLF Event Transaction will remain open until the earlier of (x) such time that the Corporation has executed a trade liquidating the financed securities ("Liquidating Trade"), (y) such time that the Corporation has obtained liquidity through its other available liquid resources and closes the CLF Event Transaction or (z) the CLF Event Transaction Termination Date; and

(E) Upon the Corporation's execution of the Liquidating Trade, the Corporation will notify each Member party to a CLF Event Transaction of the Corporation's termination of the CLF Event Transaction and will instruct each such Member to deliver the related Eligible Securities to the Corporation in order to enable the Corporation to complete settlement of the Liquidating Trade. The Corporation will endeavor to terminate the CLF Event Transactions based on the order that the Corporation enters into Liquidating Trades for the related Eligible Securities and the Corporation's ability to meet its risk management objectives of minimizing liquidation losses on the applicable Eligible Securities and supporting the stability of the broader financial market.

(c) The Corporation has sole discretion as to the non-Defaulting Member(s) with ~~which~~whom it will enter into CLF Event Transactions upon declaration of a CLF Event and the terms of each such transaction. A CLF Event Transaction may only be initiated by the Corporation.

(d) Upon notice from the Corporation as set out in ~~paragraph~~ Rule 410(a) ~~of this Rule 410~~, a Member must enter into a CLF Event Transaction(s) with the Corporation up to a pre-specified maximum amount under which the Member becomes a cash lender to the Corporation to allow the Corporation to meet its funding obligations. The Corporation will inform each Member selected to participate in a CLF Event Transaction of the amount, rate and any additional pertinent information.

(e) The Corporation may collateralize the CLF Event Transaction by pledging Qualified Margin Securities pledged by the Defaulting Member or Defaulting User or collateral deposited to the Guaranty Fund. Additionally, the Corporation may pledge Eligible Securities it receives from non-defaulting Members and non-Defaulting Users that had been intended to be delivered to the Defaulting Member or Defaulting User.

(f) Unless otherwise indicated by the Corporation, the Corporation shall provide each Member that is a party to a CLF Event Transaction a daily report detailing that Member's CLF Event Transaction activity.

(g) Each CLF Event Transaction will be entered into on an overnight basis, unless otherwise specified by the Corporation. Each CLF Event Transaction may be rolled daily at the discretion of the Corporation and will remain open until (i) upon contractual settlement date of a trade liquidating the financed securities, (ii) such time that the Corporation has obtained liquidity through its other available liquid resources, or (iii) the occurrence of the CLF Event Transaction Termination Date. CLF Event Transactions can have a term of up to 30 days and the Corporation, at its sole discretion, can extend the CLF Event Transaction by up to an additional 30 days.

(h) At such time as the Corporation determines the financing provided by a CLF Event Transaction is no longer required to meet its funding obligations, the Corporation will notify each Member that is a party to a related CLF Event Transaction of the Corporation's termination of such CLF Event Transaction and shall instruct each Member to deliver the related securities to the Corporation in exchange for cash in order to complete settlement on the contractual settlement date to be determined by the Corporation. The Corporation shall endeavor to terminate the CLF Event Transactions based on the order that the Corporation entered into them. CLF Event Transactions shall be terminated only by the Corporation.

(i) Calculation of Required CLF Size and Allocated Capped CLF Amounts.

(i) The Corporation shall conduct an assessment at least every quarter, or more frequently as the Corporation deems appropriate, to evaluate the hypothetical liquidity need the Corporation may experience in the event of a Default of a Participant Family ("Stress Potential Payment Obligation" or "SPPO") to which the Corporation would be obligated to make the largest cash payment. The Corporation may consider other factors it deems relevant, such as historical volatility and concentration of SPPO amounts, the historical total amounts of Allocated Capped CLF Amounts, the historical size transactions cleared by the Corporation, and other factors in determining the required size of the CLF (e.g., aggregated Allocated Capped CLF Amounts of all Members).

(ii) The Corporation shall calculate each Member's Allocated Capped CLF Amount at such time the Corporation performs its assessment referred to in clause (i) above. Each Member's Allocated Capped CLF Amount will be calculated on a pro rata basis, based on the size of each Member's SPPO relative to the total aggregate SPPO across all Members. Each Member's SPPO is calculated by taking the sum of the Member's largest SPPO plus the largest SPPO of the two Users it authorized, if any, over the lookback period. The Corporation, at its sole discretion, can add a multiplier to a particular Member's SPPO as part of determining that Member's Allocated Capped CLF Amount. The Corporation will provide a periodic report to each Member with its individual Allocated Capped CLF Amount. In the event that the Corporation declares a CLF Event, Members shall be required to enter into CLF Event Transactions up to their individual Allocated Capped CLF Amount as calculated by the Corporation.

(j) Required Attestation and Acknowledgment.

(i) On at least an annual basis, an authorized representative, as designated pursuant to Rule 312, of each Member shall satisfactorily complete an attestation declaring the Member understands and acknowledges to be bound, by the Corporation's Rules with respect to CLF, the Corporation's use of such Member's

Allocated Capped CLF Amount and associated obligations, and that such Member has suitably incorporated that individual Member's Allocated Capped CLF Amount into their ongoing liquidity planning in order to be prepared to meet their obligation as may be required. Each Member must complete the aforementioned attestation within the period prescribed by the Corporation.

(ii) From time to time the Corporation may require acknowledgements by Members, including, but not limited to, acknowledgement that they have been informed of a change to their Allocated Capped CLF Amount, a declaration that they are prepared to enter into a CLF Event Transaction up to the full amount of Allocated Capped CLF Amount if instructed to do so by the Corporation following the declaration of a CLF Event, acknowledgement of the Rules in the event of a change to the authorized representative of the Member, or other acknowledgements as deemed relevant by the Corporation. Each Member must complete the aforementioned acknowledgement within the period prescribed by the Corporation.

(k) Report of Actions. If the Corporation enters into Repo Transactions involving Eligible Securities under non-committed master repurchase agreement pursuant to Rule 408 or a CLF MRA pursuant to this Rule 410, it shall promptly notify the SEC and other relevant regulatory agency(ies) of such action, by the close of business on the day such action is taken where practicable.

(l) Operational Testing. On at least an annual basis, the Corporation shall conduct a CLF MRA test with all Members. The test will be designed to ensure operational capability of the Corporation and its Members to support the operational aspects of entering into one or more CLF Event Transactions in the event the Corporation declares a CLF Event. All Members, upon request by the Corporation, shall participate in a hypothetical CLF Event and a CLF Event Transaction and will be required to demonstrate its operational capability as established by the Corporation. The Corporation may consider any other CLF Event Transaction, actual or test, that has been executed by the Corporation with that Member in satisfaction of this requirement.

Rule 411. Substitution of Guaranty Fund Cash

(a) The Corporation, in its sole discretion, may substitute any cash deposited by non-Defaulting Members in the Guaranty Fund with U.S. Treasury securities ~~of the~~pledged to the Corporation for the Account of a Defaulting Member or Defaulting User, including those pledged as initial margin, deposited to the Guaranty Fund, and those intended to be received from non-Defaulting Members and non-Defaulting Users in satisfaction of trade settlement obligations. ~~The amount of~~

(b) The Corporation shall notify impacted non-Defaulting Members via an Advisory that it is effecting such a substitution. The Advisory shall state the total amount of the cash substitution and identify the U.S. Treasury securities to be deposited in the Guaranty Fund by CUSIP. U.S. Treasury securities deposited in the Guaranty Fund in substitution of cash therein shall be allocated pro rata to the cash Guaranty Fund contributions of the non-Defaulting Members, and the Corporation shall inform each non-Defaulting Member of the amount of its cash Guaranty Fund contribution that is subject to substitution.

(c) The amount of cash substituted shall be equal to the ~~haircut~~ market value (determined by the Corporation as of the Close of Business on the prior Business Day) of the U.S. Treasury securities that are subject to substitution~~.~~, subject to an appropriate haircut established by the Corporation in its discretion. The market value of the U.S. Treasury securities, after application of the haircut, shall equal the value of the cash substituted.

(d) The Corporation shall apply any assets transferred pursuant to this Rule 411 as Guaranty Fund deposit(s) of any such Member whose cash was substituted and will allocate the assets pro rata among any Members with cash deposits. The substitution of U.S. Treasury securities for the cash portion of the Member's Guaranty Fund deposit will be limited to the size of the Member's Guaranty Fund deposit.

(e) The Corporation shall complete substitution of U.S. Treasury securities for cash Guaranty Fund contributions within such time as the Corporation shall determine after the Corporation notifies non-Defaulting Members that it is effecting such substitution.

(f) An impacted non-Defaulting Member may, within 24 hours of substitution, request that the Corporation replace the cash for the substituted U.S. Treasury securities, to the extent still on deposit, within 29 days of the date of substitution. Any Member requesting cash replacement will receive the exact value in cash received by the Corporation upon liquidation of the U.S. Treasury securities. Notwithstanding the foregoing, as soon as reasonably practicable, the Corporation shall replace the substituted U.S. Treasury securities in the Guaranty Fund for cash when available.

(g) Procedures for substitution of Guaranty Fund cash pursuant to Rule 403(b). With respect to the Corporation's substitution instruction to a Member to deposit cash in exchange for U.S. Treasury securities on deposit in satisfaction of the Member's Required Guaranty Fund Contribution pursuant to Rule 403(b), such instructions will be made during the hours in which the Federal Reserve's securities wire transfer system is in operation, provided, however that if such directions are given less than sixty (60) minutes prior to the close of the Federal Reserve's securities wire transfer system, the substitution required hereunder shall be made within sixty (60) minutes after the Federal Reserve's securities wire next opens. To the extent that a Member(s) fails to provide U.S. Dollar cash within the

deadlines specified above, the Corporation may debit U.S. Dollar cash from that Member's Bank account for its Member Account in the amount of the Member's non-U.S. Dollar cash Required Guaranty Fund Contribution then on deposit with the Corporation.

Rule 412. Corporation Authority with Respect to Users of a Defaulting Member

In the event of a Member Default, the Corporation may (i) arrange to transfer the User Account(s) (which includes the transfer of the positions, obligations, margin and available funds held in such User Account(s)) of any non-Defaulting User(s) of such Member to ~~a~~one or more non-Defaulting ~~Member~~Members that has entered into an Authorization Agreement with such User, if such authorized Users are not themselves in Default; (ii) liquidate any open positions in an Independent User Account or Supported User Account without prior notice or attempting to first transfer the User's positions to a non-Defaulting Member; and (iii) prior to any transfer or liquidation described in clause (i) or (ii) collect Outstanding Exposure Settlement directly from any non-Defaulting Supported User of the Defaulting Member.

Rule 413. Making Good Charges to Guaranty Fund

(a) If a pro rata charge is made against a non-Defaulting Member's Required Guaranty Fund Contribution pursuant to Rule 406, and as a consequence, a non-Defaulting Member's remaining contribution to the Guaranty Fund is less than the non-Defaulting Member's Required Guaranty Fund Contribution, the non-Defaulting Member shall, upon the Corporation's demand, contribute to the Guaranty Fund, within such time as the Corporation shall require, an amount at least sufficient to eliminate the deficiency in the Required Guaranty Fund Contribution, subject to the maximum aggregate contribution set forth in ~~paragraph~~ Rule 413(b) ~~of Rule 413~~. If the non-Defaulting Member fails to do so, the Corporation may default such Member pursuant to Rule 902. The voluntary or involuntary cessation of membership by the Member shall not affect the obligations of the Member to the Corporation or any remedy to which the Corporation may be entitled pursuant to these Rules or applicable law.

(b) The obligation to contribute to the Guaranty Fund set forth in ~~paragraph~~ Rule 413(a) ~~of this Rule 413~~ shall apply with respect to each Default by a Member, regardless of the cause of the Default. If more than one Member Default occurs at the same time or in close sequence, including a Default that occurs by reason of a Member's failure to satisfy a Default Assessment, the Corporation shall manage the Defaults separately. Notwithstanding any other provision of any other By-Law, Rule, or Procedure of the Corporation, upon any Default, each non-Defaulting Member's obligation to contribute to the Guaranty Fund and to satisfy its Default Assessments shall be subject to the aggregate maximum set forth in ~~paragraph~~ Rule 402(c) ~~of Rule 402~~ during the period from the date of the original Default until the later of (i) the fifth Business Day thereafter or (ii) if another Member Defaults during the five (5) Business

Days following the initial or any subsequent Default, the fifth Business Day following the last such Default (such period, the "Cooling Off Period"), regardless of the number of Defaults that occur during such Cooling Off Period. If a non-Defaulting Member makes a Guaranty Fund contribution to restore its Required Guaranty Fund Contribution pursuant to ~~paragraph~~ Rule 413(a) ~~of Rule 413~~ that exceeds the maximum amount set forth in this paragraph, such non-Defaulting Member's Required Guaranty Fund Contribution will be reduced accordingly for the remainder of the Cooling Off Period. Following the Cooling Off Period, the Corporation shall notify each Member of its Guaranty Fund deposit obligation and its Default Assessment.

(c) A Member may voluntarily withdraw during the Cooling Off Period, provided, however, that the Member must still satisfy its aggregate maximum contribution in effect at the commencement of the Cooling Off Period as set forth in ~~paragraph~~ Rule 413(b) ~~of this Rule~~.

(d) The Corporation's contribution during the Cooling Off Period to discharge a Defaulting Member's obligations shall be limited to the amount set forth in ~~paragraph~~ Rule 406(a)(iii) ~~of Rule 406~~. The Board may, at its discretion, authorize additional funds be added to the Corporation's contribution during the Cooling Off Period. Following the Cooling Off Period, the Corporation shall restore its corporate contribution to the amount set forth in ~~paragraph~~ Rule 406(a)(iii) ~~of Rule 406~~.

(e) Following any charges against the Guaranty Fund due to Default by a Member, the Corporation will provide updated Guaranty Fund Statements to Members.

Rule 414. Recovery of Loss Charged Pro Rata

If a loss charged pro rata pursuant to Rule 406 is afterward recovered by the Corporation, in whole or in part, the net amount of the recovery shall be credited to the Members against whose contributions the loss was charged in proportion to the amounts charged against their respective contributions, whether they are still Members or not.

Rule 415. Guaranty Fund Contribution Refund upon Cessation of Membership

Whenever a Member ceases to be such, for whatever reason, its Guaranty Fund deposit shall be returned to it within sixty (60) days of ceasing to be a Member, but not until all transactions and obligations of the Member from which losses or payments might result have been settled or paid, or, with the approval of the Corporation, another Member has been substituted thereon. All amounts chargeable against a Member's contribution to the Guaranty Fund, including pro rata charges, shall be deducted from the amount returned. Any obligations

of a Member to the Corporation that are unsatisfied at the time it ceases to be a Member shall not be affected by such cessation.

Rule 416. No Claims Against the Corporation

(a) No Member or User, or any Affiliate, subsidiary, or customer thereof, shall have a claim against the Corporation, CME Group, or any Affiliate or subsidiary of CME Group, or any directors, officers, or employees of any of the foregoing, with respect to any losses suffered as a result of the application of the Corporation's ability to modify its obligations with respect to transactions, as set forth in the Rules ~~or Procedures~~ (including, but not limited to, Rules 1507 and 1509).

(b) No Member or User, or any Affiliate, subsidiary, or customer thereof, shall have a claim against another non-Defaulting Member or User as a result of the application of the Corporation's ability to modify its obligations with respect to transactions, as set forth in the Rules ~~and Procedures~~ (including, but not limited to, Rules 1507 and 1509).

Rule 417. Testing

The Corporation shall conduct periodic testing and review of its default procedures at least annually and following material changes thereto, as required by ~~paragraph~~ Rule 17ad-22(e)(13) ~~of Rule 17ad-22~~ under the Securities Exchange Act. It shall conduct such testing and review in the manner it shall communicate to Members and Users through an Advisory or otherwise. If required by the Corporation, all Members and Users must participate in testing of the Corporation's default procedures.

CHAPTER 5. MARGIN AND OUTSTANDING EXPOSURE SETTLEMENT

The Rules in this Chapter shall be supplemented or, in the event of a conflict, superseded by the Rules relating to clearing of Eligible Securities Transactions in a specific Clearing Service.

Rule 501. Margin Required

The Corporation, in its sole discretion, will determine initial margin requirements for any Eligible Securities Transactions it clears. The Corporation shall require (A) a Member for its Member Account, (B) a Member on behalf of its authorized Supported Users for their Supported User Accounts, and (C) an Independent User for its Independent User Account to post margin pursuant to the Rules ~~and Procedures~~ applicable to transactions in each Eligible Securities Transaction cleared by the Corporation.

Rule 502. Form and Value of Initial Margin; Collateral Value Reports

(a) Initial Margin Collection Method. The Corporation collects initial margin in accordance with the portfolio margin collection method ("Portfolio Margin Collection method"). The Corporation calculates initial margin amounts under the Portfolio Margin Collection method, based on a Member's or User's portfolio of Eligible Securities Transactions in accordance with the Corporation's proprietary margin model at least twice daily during the intraday and end-of-day clearing cycles. the Corporation may, in its sole discretion, impose additional initial margin requirements on a Member or User. The Corporation's initial margin model includes market, liquidity and concentration risk components. Members and Users must deliver margin amounts for which such amounts are calculated in accordance with ~~Procedure 5-2.~~ this Rule 502. Detailed information about the Corporation's margin model and calculations is available to a Member or User on a confidential basis from the Corporation upon request and subject to any confidentiality requirements imposed by the Corporation.

(b) Form and Limitations on Types of Collateral. Members and Users must deposit margin in cash or Qualified Margin Securities and/or such other non-cash form(s) in amounts, and in the manner~~,~~ specified by the Corporation from time to time and set forth in these Rules ~~and the Procedures~~. All initial margin calls must be met in cash, unless the Corporation otherwise approves, provided that the Member or User (as applicable) remains obligated to deliver required initial margin in the form of Qualified Margin Securities or other permissible non-cash form(s) to the Corporation by the applicable deadline. The Corporation will review the forms of collateral acceptable as satisfying initial margin requirements, on at least a monthly basis, and more frequently as market conditions warrant. The Corporation may modify the forms of collateral that are acceptable to satisfy initial margin requirements at any

time as the Corporation, in its sole discretion, deems appropriate. The Corporation may impose collateral limits and/or minimums on acceptable forms of collateral for satisfying initial margin requirements at any time as the Corporation, in its sole discretion, deems appropriate to support the safety of the Corporation. The Corporation will notify Members and Users in advance of imposing any such limitations or minimums, where practicable. Consistent with Rule 504, all collateral posted to the Corporation shall be free of liens or any other encumbrances.

(c) Substitution. Subject to the Corporation's approval, a Member for its own Member Account, a Member on behalf of its Supported User(s) for their Supported User Account(s), or an Independent User for its Independent User Account may post Qualified Margin Securities and/or such other permissible non-cash form(s) to the Corporation's Bank(s) to substitute for cash posted to the Corporation's Bank as initial margin~~, as set forth in subparagraph (c)(ii) of Procedure 5-4.~~. The Corporation shall require the Corporation's Bank(s) to confirm to the Corporation via the SWIFT system, or such other system that the Corporation may designate, that the transferred securities have been received. Upon confirmation, the Corporation shall require the Corporation's Bank(s) to transfer the excess initial margin in the form of cash to the Member's or Independent User's Bank. Substitution will be effected in accordance with the timelines that the Corporation determines and communicates to Members and Independent Users.

(d) Value. Margin in the form of Qualified Margin Securities or other permissible non-cash form(s) of margin will be valued as specified by the Corporation from time to time.

(e) Collateral Value Reports. At least once each business day, no later than the time(s) specified by the Corporation, each Member that authorizes any Supported User must provide to the Corporation a collateral value report that instructs the Corporation how to allocate within the Corporation's books and records the margin deposited by the Member for Supported Users to each Supported User Account, and within each Supported User Account, the portion of the margin attributable to the Member as Funded Supported User Margin and to the Supported User as Supported User Margin along with identification of any Qualified Margin Securities or other permissible non-cash collateral attributable to the Supported User Account by identifying information prescribed by the Corporation.

(f) U.S. Treasury Securities. The Corporation will notify Members and Users via Advisory of the terms regarding its acceptance of U.S. Treasury securities in satisfaction of initial margin requirements.

(i) Limitations. Notwithstanding any limitations imposed by the Corporation pursuant to this Rule 502, U.S. Treasury securities posted in satisfaction

of initial margin requirements must be denominated in multiples of one hundred dollars ($100).

(ii) Valuation of Securities. The value of U.S. Treasury securities posted as initial margin are based on the current market value, less any adjustments required, as set forth in haircut schedules determined by the Corporation, which the Corporation will make available to Members and Users via Advisory. The Corporation may adjust the haircut schedules at any time as the Corporation, in its sole discretion, deems appropriate to support the safety of the Corporation.

(iii) Maturity. When a U.S. Treasury security posted by a Member or User (as applicable) to satisfy its initial margin requirements matures to cash, the posted security will be substituted with the cash proceeds. Maturity proceeds that are in excess of the initial margin requirement may be released by the Corporation upon request pursuant to Rule 510(a). Otherwise, the maturity proceeds will be held as initial margin.

(g) Deposits. Members, Members on behalf of Supported Users, and Independent Users must enter information regarding posting margin into the Corporation's system by the appropriate deadlines, as set forth in these Rules.

(i) Members, Members on behalf of Supported Users, and Independent Users shall post cash and securities for purposes of satisfying initial margin requirements as set forth in the Rules.

(ii) The Corporation shall instruct Members, Members on behalf of Supported Users, and Independent Users as to which documentation they must complete and provide and/or file to allow the Corporation to perfect a lien on collateral pledged as margin, if applicable.

(iii) The Corporation will auto-debit cash to satisfy initial margin requirements from Members, Members on behalf of Supported Users, and Independent Users after each clearing cycle.

Rule 503. Haircut Collateral

(a) Clear to Deliver

(i) If Participants who are parties to a Clear to Deliver Transaction have calculated Haircut Collateral with respect to such transaction, they may but are not required to post the Haircut Collateral to the Corporation.

(ii) The Corporation will calculate and collect initial margin for each Clear to Deliver Transaction submitted to the Corporation for clearance and settlement consistent with the Rules~~, Procedures~~ and policies of the Corporation, as applicable. The Corporation's initial margin calculation for each Clear to Deliver Transaction will be separate from, and will not take into account, Haircut Collateral that the parties calculate and post for the Clear to Deliver Transaction.

(iii) Although initial margin for a Clear to Deliver Transaction will be calculated separately from, and will not take into account, Haircut Collateral calculated and posted to the Corporation for the same Clear to Deliver Transaction, the Corporation will pass Haircut Collateral with respect to the Clear to Deliver Transaction through to the securities buyer.

(b) Clear to Hold

(i) If Participants who are parties to a Clear to Hold Transaction have calculated and posted Haircut Collateral with respect to such transaction to the Securities Settlement Bank, the Corporation will deem such Haircut Collateral as pledged to the Corporation. The Corporation will then calculate and collect initial margin for each Clear to Hold Transaction submitted to the Corporation for clearance and settlement consistent with the Rules~~, Procedures~~ and policies of the Corporation, as applicable, while providing credit for the Haircut Collateral in the calculated initial margin requirement.

Rule 504. Corporation Lien

Each Member and each User hereby grants to the Corporation to secure obligations of such Member or User to the Corporation a first priority and unencumbered security interest and lien against any property, cash, securities, or collateral deposited with, held by, pledged to, or otherwise available to, the Corporation by such Member or User. Members and Users shall execute any documents required by the Corporation to create and enforce such lien.

Rule 505. Management and Investment of Margin

(a) Cash.

(i) Cash posted for margin purposes shall be posted with the Corporation (A) by a Member for its Member Account, (B) by a Member on behalf of its Supported Users for such Supported Users' Supported User Accounts, and (C) by an Independent

User for its Independent User Account, except as may be otherwise specified with respect to a specific Eligible Securities Transaction.

(ii) Any cash posted for margin purposes may be partially or wholly invested in U.S. government obligations or any other interest-bearing investments which provide safety and liquidity of the principal invested, as determined by the Corporation. The Corporation shall limit investments of initial margin cash only in U.S. Treasury securities with a maturity of one year or less. Any investment income or losses from cash deposited for margin purposes shall accrue to the Corporation, unless otherwise specified by the Corporation and set forth in ~~the Procedures~~these Rules.

(b) Securities.

(i) Qualified Margin Securities posted for margin purposes shall be posted with the Corporation (A) by a Member for its Member Account, (B) by a Member on behalf of its Supported Users for such Supported Users' Supported User Accounts, and (C) by an Independent User for its Independent User Account, except as may be otherwise specified with respect to a specific Eligible Securities Transaction.

(ii) Qualified Margin Securities posted for margin purposes will be deemed to be deposited with the Corporation at the time when the Corporation confirms receipt.

(iii) All interest, dividends, or gain received or accrued on such securities prior to any sale or negotiation thereof, and any proceeds from the maturity of the securities received by the Corporation shall belong to the Member or User that posted such securities.

Rule 506. Outstanding Exposure Settlement

(a) The Corporation shall collect and pay Outstanding Exposure Settlement at least daily in accordance with the requirements set forth in ~~paragraph~~ Rule 508(c)~~ of Procedure 5-1~~. No later than the time specified by the Corporation for (A) each Member with respect to its Member Account, (B) each Member on behalf of its Supported Users with respect to such Supported Users' Supported User Accounts, and (C) each Independent User with respect to its Independent User Account, the Corporation shall auto-debit the relevant Bank account(s) in the amount owed to the Corporation, as calculated by the Corporation, for each relevant Account and will pay to the relevant Bank account(s) the amount owed by the Corporation, as calculated by the Corporation, for each relevant Account. Such Outstanding Exposure Settlement will account for the increase or decrease, as applicable, based on the settlement price for preceding clearing cycle, in the market value of the relevant Account, in addition to

any other adjustments specific to the Eligible Securities Transaction as set forth in the Rules ~~and Procedures~~. The Corporation may forego collecting and paying out de minimis amounts of Outstanding Exposure Settlement.

(b) All payments in satisfaction of Outstanding Exposure Settlement obligations must be paid in cash or any other form of payment approved by the Corporation; shall be deemed settled to market (and not posting of collateral); and shall be final, irrevocable and unconditional no later than when the correct account at the relevant Bank or Securities Settlement Bank is debited or credited with the payment.

Rule 507. Banks and Accounts

(a) The Corporation shall disclose to its Participants the Bank(s) that are designated to receive initial margin and to receive and make payments for Outstanding Exposure Settlement. The Corporation shall provide reasonable notice ~~if~~of any change in the Corporation's designation of the Bank(s) prior to the effective date of such change. The Corporation will establish separate omnibus accounts at its Bank(s) for holding of initial margin and (where provided in the Rules ~~or Procedures~~) for receiving and making payments with respect to at least (i) Member Accounts, (ii) Supported User Accounts of Supported Users that are authorized by Members that are registered as broker-dealers under the Securities Exchange Act, and (iii) all other Supported User Accounts and Independent User Accounts.

(b) As soon as practicable following their approval as a Member or a User, each Member and each Independent User must notify the Corporation, in such manner as the Corporation may prescribe, of the Bank(s) so designated by the Corporation at which it will maintain an account(s) for the deposit and posting of initial margin and Outstanding Exposure Settlement. Each Member and Independent User must notify the Corporation immediately of any change in such regard. Each Member and Independent User is required to enter into an agreement with a Bank from a list of institutions designated by the Corporation for the deposit and posting of initial margin and Outstanding Exposure Settlement.

(c) A Member that posts initial margin to the Corporation on behalf of Supported Users with respect to such Supported Users' Eligible Securities Transactions shall establish and maintain one or more accounts at such Member's Bank with respect to the deposit and posting of initial margin on behalf and for the benefit of such Supported Users. Such account(s) must be separate from the accounts that the Member establishes and maintains with respect to handling initial margin for its proprietary Eligible Securities Transactions.

(d) No improper or unauthorized action, or failure to act, by a Bank acting on behalf of a Member or Independent User shall excuse or otherwise affect the obligations of the Member or Independent User to the Corporation pursuant to these Rules ~~or the Procedures~~.

Rule 508. Daily Margin Report

(a) Once each Business Day, no later than the time(s) specified by the Corporation, the Corporation shall make available to each Member and User the Daily Margin Report with respect to Eligible Securities Transactions cleared by such Member or User through the Corporation. The Daily Margin Report will indicate, among other things specific to the Clearing Service, for each clearing cycle:

(i) the amount of initial margin that a Member must post with respect to its proprietary Eligible Securities Transactions and on behalf of its Supported Users with respect to their Eligible Securities Transactions and that an Independent User must post with respect to its Eligible Securities Transactions;

(ii) the margin previously posted by the Member or User, and any surplus over the amount required or deficit to be satisfied, as the case may be~~, and~~ ;

(iii) the amount of Outstanding Exposure Settlement that a Member must pay (or is due to receive) with respect to its proprietary Eligible Securities Transaction and on behalf of its Supported Users with respect to their Eligible Securities Transactions and that an Independent User must pay (or is due to receive) with respect to its Eligible Securities Transactions;

(iv) the amount of any payments for Outstanding Exposure Settlement that were paid or received by the Member or User~~. The Daily Margin Report will also provide~~ ; and

(v) a breakdown of the margin previously posted by a Member for a Supported User that is attributable to the Member as Funded Supported User Margin and to the Supported User as Supported User Margin, as identified by the Member to the Corporation in its most recent collateral value report submitted in accordance ~~paragraph~~ Rule 502(e) ~~of Rule 502~~ and such procedures as the Corporation may prescribe. The Member represents and warrants to the Corporation that the information provided in each collateral value report it submits to the Corporation is complete and accurate.

The Corporation may, at the request of an Independent User, provide a breakdown in the Daily Margin Report of the margin previously posted by the Independent User to the Corporation for its Independent User Account that is attributable to its authorizing Member, as identified by the Independent User to the Corporation. The Corporation shall make the Daily Margin Report available through the Securities Clearing System and via secure file transfer protocol, or via such other means determined by the Corporation, to each Member and User following each clearing cycle on each Business Day, at such time as the Corporation shall determine.

(b) A margin deficit of a Member or User as shown on the Daily Margin Report of a particular day shall be satisfied by the time specified by the Corporation, notwithstanding any error in such report. Any errors in the Daily Margin Report shall be reported promptly to the Corporation, and any correction or adjustment in the amount of required margin shall be shown on the next Daily Margin Report.

(c) During each Business Day, the Corporation shall perform an end-of-day clearing cycle and at least one intraday clearing cycle whereby initial margin requirements are satisfied by and Outstanding Exposure Settlement is paid to or received from Members and Users (as applicable).

(i) End-of-Day. At approximately 8:30 a.m. Eastern Time on the next Business Day after the Business Day for which such initial margin and Outstanding Exposure Settlement requirements were calculated, the Corporation shall collect initial margin and Outstanding Exposure Settlement (as applicable) from each Member and User (as applicable) by debiting the Member Account, Supported User Accounts, and Independent User Accounts at one or more Banks designated pursuant to Rule 507. Subsequently, the Corporation shall pay Outstanding Exposure Settlement to each Member or User (as applicable) by crediting the Member Account, Supported User Account, and Independent User Account, as applicable, at one or more Banks designated pursuant to Rule 507. The Corporation shall require the Corporation's Bank(s) to confirm to the Corporation via the SWIFT system, or such other system that the Corporation may designate, that the amounts required pursuant to these Rules have been received or paid (as applicable). The Corporation will make the Daily Margin Report available following completion of the batch processing cycle at approximately 9:00 p.m. Eastern Time on the Business Day for which such initial margin and Outstanding Exposure Settlement requirements were calculated for the end–of-day clearing cycle referenced in this Rule 508(c)(i). The Corporation will notify Members and Users of any changes to such times in an Advisory.

(ii) Intraday. At approximately 2:00 p.m. Eastern Time on the same Business Day on which such initial margin and Outstanding Exposure Settlement requirements were calculated, the Corporation shall collect initial margin and Outstanding Exposure Settlement (as applicable) from each Member and User (as applicable) by direct debiting the Member Account, Supported User Account, and Independent User Account, as applicable, at one or more Banks designated pursuant to Rule 507. Subsequently, the Corporation shall pay Outstanding Exposure Settlement to each Member or User (as applicable) by crediting the Member Account, Supported User Account, and Independent User Account, as applicable, at one or more Banks designated pursuant to Rule 507. The Corporation shall require the Corporation's Bank(s) to confirm to the Corporation via the SWIFT system, or such other system that the Corporation may designate, that the amounts required pursuant to these Rules have been received or paid (as applicable). The Corporation will make the Daily Margin Report available following completion of the batch processing cycle at approximately 1:00 p.m. Eastern Time on the same Business Day on which such initial margin and Outstanding Exposure Settlement requirements were calculated for the intraday clearing cycle referenced in this Rule 508(c)(ii). The Corporation will notify Members and Users of any changes to such times in an Advisory.

Rule 509. Settlement Cycles; Additional Margin

(a) Settlement Cycles. The Corporation shall conduct at least one settlement cycle each Business Day and may conduct one or more additional settlement cycles, at such time(s) as the Corporation shall determine. The Corporation also may, in its sole discretion, run an additional clearing cycle to facilitate the exchange of Outstanding Exposure Settlement, covering settlement variation and any other components deemed appropriate by the Corporation.

(b) Need for Additional Margin. If the market conditions or price fluctuations are such that the Corporation deems it necessary, the Corporation may, in its sole discretion, require additional margin be posted by any Member(s) or User(s) in any account by such time and in such amount and form as specified by the Corporation. The Corporation may require the additional margin be posted as the Corporation deems advisable:

(i) to reflect changes in the market price during such day of any securities that are subject to repurchase;

(ii) to reflect changes in the size of such Member's or User's positions in cleared Eligible Securities or Eligible Securities Transactions;

(iii) to reflect changes in the value of securities deposited by the Member or User as margin pursuant to Rule 502;

(iv) to reflect changes in the financial position of the Member or User; or

(v) otherwise to protect the Corporation, other Members, other Users, or the general public.

(c) Timing of Deposit of Additional Margin. Such Member, including a Member on behalf of a Supported User, or an Independent User shall satisfy the requirement for additional margin in immediately available funds within ~~the time prescribed by the Corporation~~ one (1) hour of being notified of such requirement or such other longer period of time specified by the Corporation.

(d) Credit for Additional Margin. Credit shall be given for any such additional margin posted in each Daily Margin Report for such account commencing on the Business Day on which the additional margin was required and continuing until such time as the release of such additional margin is authorized.

Rule 510. Withdrawal of Margin

(a) Authorization of Withdrawal. If the amount of margin posted for the benefit of a Member ~~or User exceeds~~, Member on behalf of a Supported User, or Independent User is in excess of the amount of initial margin required on a particular day~~, as shown on the Daily Margin Report for such day~~ (or a Member, Member on behalf of a Supported User, or Independent User seeks to substitute collateral deposited as margin), the Corporation shall, pursuant to the Rules ~~and Procedures~~ applicable to specific Eligible Securities Transactions, authorize the withdrawal of the amount of the excess collateral (or collateral it seeks to withdraw for substitution purposes) upon the Member's, Member on behalf of a Supported User's, or Independent User's submission to the ~~Corporation~~Corporation's system of a withdrawal request ~~in such form and manner as the~~. The Corporation may permit withdrawal of such excess amount by directing its Bank to deliver it to the relevant account at the Bank of the Member or Independent User, as applicable. The Corporation shall ~~prescribe.~~require the Corporation's Bank(s) releasing the applicable amounts to confirm to the Corporation via the SWIFT system, or such other system that the Corporation may designate, that the appropriate amounts have been released.

(b) Exceptions. Notwithstanding ~~paragraph~~ Rule 510(a) ~~of this Rule 510~~:

(i) a Member or User may not withdraw margin in any form or currency in an amount in excess of the amount of margin of that form or currency posted to the account from which the withdrawal is made; and

(ii) if, in the Corporation's discretion, the Corporation deems it advisable for the protection of the Corporation, the Members, the Users, or the general public, the Corporation may reject any such withdrawal request, provided that the Corporation may only reject a request pursuant to Rule 510(a) to withdraw excess collateral by a Member on behalf of a Supported User or by an Independent User for reasons related to risk considerations with respect to such User, as reasonably determined by the Corporation in its sole judgment. In the event of any such rejection, ~~credit~~the Corporation shall continue to ~~be given~~give credit for any margin posted in respect of which withdrawal was rejected, in each Daily Margin Report for the appropriate account, and to hold the margin posted subject to and in accordance with the Rules including Rule 513 as may be applicable, until the withdrawal of such margin posted is authorized.

Rule 511. Waiver of Margin

(a) Conditions for Waiver. The Head of the Corporation, or such other officer of the Corporation as the Board may delegate, may waive, in whole or in part, conditionally or unconditionally, any deposit of margin that would otherwise be required to be made by any Member or User in any account at any time during any Business Day upon a determination that such waiver:

(i) is advisable in the interest of maintaining fair and orderly markets or is otherwise advisable in the public interest and for the protection of investors; and

(ii) is consistent with maintaining the financial integrity of the Corporation.

(b) Notice to Board and SEC. The Corporation shall advise its Board ~~of Directors~~ and the SEC as soon as practicable in writing of the granting of any such waiver and the reasons therefor; provided, however, that, the Corporation is not required to advise the Board ~~of Directors~~ and the SEC of a waiver that the Head of the Corporation or their delegate has determined to be a minimal risk to the Corporation, and that is outstanding for no more than one Business Day. The Corporation will prepare and maintain records of any minimal risk determinations made. The Corporation may, in its sole discretion, elect to consult with the Board and the SEC prior to granting any such waiver.

(c) Record of Waiver. A record of any such waiver shall be prepared and maintained with the records of the Corporation.

(d) Operational Waiver. The Head of Operations, or such other officer of the Corporation as the Board may delegate, may waive, in whole or in part, conditionally or unconditionally, any deposit of margin that would otherwise be required following a determination that the margin call was made solely due to an operational or data submission error.

Rule 512. Failure to Comply with Margin Requirements

If any Member or User fails to post and maintain the required level of margin, including any additional margin required pursuant to Rule 509, the Corporation shall have the right but not the obligation to default such Member or User pursuant to Rule 902. For the avoidance of doubt, if a Member fails to post and maintain the required level of margin, including any additional margin required pursuant to Rule 509, on behalf of a Supported User, the Corporation shall have the right but not the obligation to default the Member pursuant to Rule 902 or take other actions pursuant to these Rules it deems necessary, in its sole discretion.

Rule 513. Margin Deposited for Supported Users Using the Repo or Cash Treasury Clearing Services

(a) The amount of margin that the Corporation requires to meet initial margin obligations for Eligible Securities Transactions submitted for novation, clearance and settlement for the Supported User Accounts of Supported Users authorized by a Member will be delivered from the relevant Bank account maintained by the authorizing Member to the relevant Bank account of the Corporation in the manner prescribed in ~~the Procedures~~these Rules. The collateral posted to the Corporation to satisfy initial margin obligations of Support Users may be in the form of Supported User Margin and/or Funded Supported User Margin. A broker-dealer Member may deliver U.S. Treasury securities or other Qualified Margin Securities that it owns to be characterized as Supported User Margin on a temporary basis in compliance with the conditions of Section (b)(1)(iii) of Note H to Rule 15c3-3a under the Exchange Act.

(b) For each Member that authorizes one or more Supported Users, the Corporation shall, within its books and records:

(i) Establish and maintain a separate Supported User Account for each Supported User of the Member, in the name of the Member for the benefit of the Supported User;

(ii) Treat each Supported User Account as legally segregated from any other Supported User Account of the authorizing Member, from any Member Account of the authorizing Member, and from any other accounts established and maintained by the Corporation for Members or Users;

(iii) Hold Supported User Margin and Funded Supported User Margin received from the Member in the relevant Supported User Account, treat all such margin held in the Supported User Account (regardless of characterization) as assets of the Supported User, and use such assets exclusively to clear, settle, novate and margin positions of the Supported User in its Supported User Account(s);

(iv) If the Member is a broker-dealer, the Corporation shall:

(A) Maintain a master account grouping of the Supported User Accounts designated as a "Special Clearing Account for the Exclusive Benefit of the Supported Users as Customers of [name of broker-dealer Member]";

(B) Provide a written notice to the broker-dealer Member for its retention confirming that the cash and securities in the Special Clearing Account for the Exclusive Benefit of the Supported Users as Customers of [name of broker-dealer Member] is held by the Corporation for the exclusive benefit of the Supported Users (as customers) of the broker-dealer Member in accordance with the regulations of the SEC and are kept separate from any other Accounts maintained by the broker-dealer Member or any other Member or User of the Corporation; and

(C) Agree contractually with the Member that the cash and securities in the Special Clearing Account for the Exclusive Benefit of the Supported Users as Customers of [name of broker-dealer Member] are not available to cover claims arising from the Member or any other Member or User defaulting on an obligation to the Corporation or subject to any other right, charge, security interest, lien, or claim of any kind in favor of the Corporation or any person claiming through the Corporation, except a right, charge, security interest, lien, or claim resulting from a cleared Eligible Securities Transaction of a Supported User of the broker-dealer Member effected in the account.

(c) The Corporation shall hold initial margin for Supported User Accounts at the Bank in omnibus accounts as provided in ~~paragraph~~ Rule 507(a) ~~of Rule 507~~. In addition, for any omnibus account holding initial margin assets for Supported Users of Members that are broker-dealers, such account shall be:

(i) Segregated from any other account of the Corporation or any other person at the Bank and used exclusively to hold cash and securities to meet current margin requirements of the Corporation resulting from positions in Eligible Securities Transactions of Supported Users of the broker-dealer Members of the Corporation;

(ii) Subject to a written notice from the Bank provided to and retained by Corporation that the cash and securities in the account are being held by the Bank pursuant to Rule 15c3-3 and are being kept separate from any other accounts maintained by the Corporation or any other person at the Bank; and

(iii) Subject to a written contract between the Corporation and the Bank that provides that the cash, U.S. Treasury securities, and qualified customer securities in the account are subject to no right, charge, security interest, lien, or claim of any kind in favor of the Bank or any person claiming through the Bank.

(d) The Corporation shall limit investments of cash delivered by a Member as Supported User Margin or Funded Supported User Margin, including cash realized through using U.S. Treasury securities delivered by the broker-dealer Member for such purposes, only in U.S. Treasury securities with a maturity of one year or less.

Rule 514. Using the Corporation's System

The Corporation requires all Members, Members on behalf of Supported Users, and Independent Users, or an agent of the preceding, including, but not limited to, prime brokers and asset managers, to utilize the system provided by the Corporation to enter and receive information regarding initial margin and Outstanding Exposure Settlement, unless otherwise set forth in the Rules applicable to the Clearing Service for the Eligible Securities Transactions.

CHAPTER 6. CLEARANCE AND SETTLEMENT SERVICES

Rule 601. Accounts

Every Member and User shall ~~maintain~~have Accounts with the Corporation and accounts for settlement of Eligible Securities Transactions as specified and approved by the Corporation as a pre-condition to clearing Eligible Securities Transactions with the Corporation.

Rule 602. Submission of Transaction Data

(a) Transaction Data. Transaction data must be submitted to the Corporation in such form and at such time as the Corporation may specify in ~~the Procedures~~these Rules or in any Advisory.

(b) Accuracy. Transaction data submitted to the Corporation shall be accurate in all respects. The Corporation shall have no responsibility for the inaccuracy of any information submitted to the Corporation or to any other party or for the failure of any Member or User to timely submit any information required to be submitted to the Corporation or to any other party.

(c) False Clearing Information. In connection with Eligible Securities Transactions submitted to the Corporation for clearing, no Member or User shall provide any false or inaccurate transaction data, or knowingly pay or receive any cash or securities not representing bona fide transactions or the actual amount(s) due with respect to such transactions.

(d) Rejected Transaction.

(i) If the Corporation rejects the initial submission of transaction data for a transaction submitted for clearing, the Member(s) and/or User(s) (as applicable) may resubmit the transaction data to the Corporation in accordance with and by the deadlines prescribed in ~~paragraph~~ Rule 1502(~~c~~b) ~~of Procedure 15-4~~(iii). If the relevant party does not (or relevant parties do not) resubmit the transaction data by the applicable deadline, or the Corporation rejects the resubmitted transaction data, the transaction is deemed rejected and may not be resubmitted to the Corporation.

(ii) If a transaction is rejected that is an Eligible Secondary Market Transaction, it is the responsibility of the Member (or Members) to the transaction to determine how to handle the transaction to assure compliance with the Member's (or Members') obligations under ~~paragraph~~ Rule 202(b) ~~of Rule 202~~. Members are reminded that the Corporation will monitor their compliance with ~~paragraph~~ Rule

202(b) ~~of Rule 202~~ and may take action against a Member for failure to comply with such Rule.

(iii) The Corporation reserves the right to adopt a schedule of fines that will be imposed summarily on a Member or User that has a pattern of making initial submissions of transaction data to the Corporation that are rejected. The Corporation will set forth any such schedule in an Advisory or in an update to these Rules.

Rule 603. Clearance and Settlement Services

As it deems necessary, the Corporation may set forth specific ~~Procedures~~Rules concerning its Clearing Services, including, but not limited to, ~~Procedures~~Rules related to transaction management, position management, settlement and asset management, and requirements related to specific Eligible Securities Transactions. Members and Users must adhere to such ~~Procedures~~Rules as specified by the Corporation from time to time.

Rule 604. Designation of Banks for Settling Transactions

(a) The Corporation shall disclose to its Participants the Securities Settlement Bank(s) and Bank(s) that the Corporation are designated to deliver cash and Eligible Securities to and receive cash and Eligible Securities from Members and Users to settle Eligible Securities Transactions. The Corporation shall provide reasonable notice if any change in the Corporation's designation of the Securities Settlement Bank prior to the effective date of such change.

(b) Each Member and User must notify the Corporation, in such manner as the Corporation may prescribe, prior to or as soon as reasonably practicable after their approval as a Member or User, of the Securities Settlement Bank(s) or Bank(s) that will act on its behalf with respect to handling settlement of Eligible Securities Transactions. Each Member and User must immediately notify the Corporation of any change in such regard. Each Member and User is required to enter into an agreement with a Securities Settlement Bank or Bank from a list of institutions designated by the Corporation for the settlement of Eligible Securities Transactions.

Rule 605. Exclusivity of Rules

The Rules shall apply exclusively to all Eligible Securities Transactions, and resulting settlement and payment obligations, from the time that an Eligible Securities Transaction, including an Eligible Securities Transaction executed on an Eligible Platform, is submitted to the Corporation for clearing. If there is any conflict between the Rules and any third-party

rules or agreements between the parties submitting an Eligible Securities Transaction to the Corporation for clearing, the Rules shall prevail. For the avoidance of doubt, the Corporation recognizes that the Rules do not supersede applicable federal and state laws, regulations, and rules to the extent the Rules may be viewed as being in conflict with such laws, regulations, and rules. Notwithstanding the foregoing, if the Corporation rejects an Eligible Securities Transaction for clearing, the Rules shall cease to apply to that transaction unless and until such transaction is resubmitted for clearing.

Rule 606. Corporation Authority

The Corporation will have the sole authority to:

(a) determine whether any transaction submitted to the Corporation for clearing will be accepted or rejected. For the avoidance of doubt, Eligible Platforms may not make a determination on clearing acceptance or rejection and may only communicate the Corporation's determination of whether a transaction has been accepted or rejected for clearing;

(b) block or cancel any transaction submitted for clearing by, or on behalf of, any party, including Eligible Platforms, if it determines that such transaction was executed or submitted to the Corporation in error;

(c) deny or terminate the connection of any Eligible Platform to the Corporation due to technical, operational, or risk management issues at such Eligible Platform;

(d) determine whether it will accept the counterparty risk of any transaction; and

(e) determine whether transactions cleared by the Corporation are economically equivalent and should be offset within the Corporation.

Rule 607. Voids and Price Adjustments

The consent of the Corporation is required to void or adjust the price of any Eligible Securities Transaction that has been accepted for clearing by the Corporation.

Rule 608. Compliance with Regulatory Standards

No Eligible Platform may submit Eligible Securities Transactions for clearing to the Corporation unless it has complied with all applicable regulations, rules, standards, and requirements, including, but not limited to, technological, operational, and risk management

standards of the SEC and any other regulatory organization with authority over the Eligible Platform.

Rule 609. Transfer of Obligations Resulting from Eligible Securities Transactions

The Corporation may, in its sole discretion, transfer in whole or in part the positions, obligations, margin and funds (i) in any User Account to another Account at the request of the User or the Member authorizing the User or (ii) in any Member Account to another Account at the request of the Member, subject to such conditions as the Corporation may impose.

Rule 610. Novation

When the Corporation accepts an Eligible Securities Transaction for clearing, the Corporation shall, through the process of novation, be substituted as, and assume the position of, the counterparty to each of the original parties to such Eligible Securities Transaction.

Rule 611. Reports

The Corporation will provide to Members and Users reports regarding the clearance and settlement process in such form and at such times as determined by the Corporation from time to time. Each Member or User shall have the duty to review promptly each report made available to such Member or User for errors. Except as otherwise set forth in these Rules, the failure of a Member or User to advise the Corporation within the prescribed timeframe of any item in the report requiring change for any reason whatsoever shall constitute a waiver of such Member's or User's right to have such item changed.

CHAPTER 7. CORPORATION REQUIREMENTS

Rule 701. Audits and Financial Reports

(a) Annual Audit. The annual financial statements of the Corporation shall be audited by a firm of independent public accountants selected by CME Group. Such audit shall be conducted in accordance with the standards of the Public Company Accounting Oversight Board and in accordance with 17 CFR 210.2-01.

(b) Annual Financial Statements. The Corporation shall post to its website annual financial statements of the Corporation audited and covered by a report prepared by independent public accountants within sixty (60) days following the close of the Corporation's fiscal year. Such financial statements shall be prepared in accordance with U.S. generally accepted accounting principles and shall include:

(i) for the Corporation and its subsidiaries (if any), consolidated balance sheets as of the end of the two (2) most recent fiscal years and statements of income, changes in stockholders' equity, and other comprehensive income and cash flows for each of the two (2) most recent fiscal years; and

(ii) a report of the registered public accounting firm that complies with ~~paragraphs (a) through (d) of~~ 17 CFR 210.2-02(a)-(d).

(c) Annual Report on Internal Controls. The Corporation shall post to its website copies of the review of the Corporation's system of internal accounting controls prepared by the Corporation's independent public accountants within sixty (60) days following the close of each fiscal year.

Rule 702. Insurance

The Corporation may maintain, or arrange for the maintenance of, such insurance, including fidelity bonds, in such amounts and having such coverage regarding the business of the Corporation as the Corporation shall deem appropriate.

Rule 703. Action by the Corporation

Except where action by the Board, or any committee of the Board, is specifically required pursuant to the By-Laws or these Rules, the Corporation may act by the Head of the Corporation or by such person or persons, whether or not employed by the Corporation, as may be designated by the Board from time to time.

Rule 704. Interpretation of Rules

The Board or any committee thereof or their designee(s) shall have the authority to interpret these Rules. Any such interpretations shall be final and conclusive.

Rule 705. Procedures

The Board ~~shall, pursuant to these Rules,~~may prescribe from time to time Procedures regarding the clearance and settlement services of the Corporation. These Procedures may be altered, amended, or repealed, in whole or in part, or new Procedures may be adopted by (i) the Board, (ii) a committee of the Board designated by the Board pursuant to the By-Laws, or (iii) by delegated authority to specified officers of the Corporation. Procedures so adopted, altered, amended, or repealed shall become effective in accordance with the provisions of Section 19(b) of the Securities Exchange Act and Rule 19b-4 thereunder. Each Member and User will be bound by such Procedures and any amendment thereto in the same manner as it is bound by the provisions of the By-Laws and these Rules. The Corporation will post the current and complete version of ~~its~~any Procedures adopted pursuant to this Rule 705 on the Corporation's website. In the event of a conflict between any provision of the Rules and any provision of the Procedures, the Rules shall govern and prevail.

Rule 706. Rule Changes

(a) Rule Modifications. These Rules may be altered, amended, or repealed, in whole or in part, or new Rules may be adopted by (i) the Board, (ii) a committee of the Board designated by the Board pursuant to the By-Laws, or (iii) by delegated authority to specified officers of the Corporation. Rules so adopted, altered, amended, or repealed shall become effective in accordance with the provisions of Section 19(b) of the Securities Exchange Act and Rule 19b-4 thereunder. The Corporation will follow the procedures set forth in Section 19(b) of the Securities Exchange Act and Rule 19b-4 for proposed rule changes by self-regulatory organizations, including clearing agencies as described below. The Corporation will post the current and complete version of its Rules on the Corporation's website.

(b) Notice of Proposed Rule Changes. The Corporation shall promptly notify all Members and Users when it has filed a proposed rule change, and any amendments thereto, with the SEC pursuant to the provisions of Section 19(b) of, and Rule 19b-4 under, the Securities Exchange Act. The requirements of this ~~paragraph~~ Rule 706(b) shall be deemed to have been satisfied if Members and Users are notified that a proposed rule change or an amendment thereto, as applicable, has been filed and that copies thereof have been posted on the Corporation's website for inspection by interested Members or Users within two (2) Business Days of filing with the SEC. The failure of the Corporation to comply with this Rule

706 in any respect shall not affect the validity, force, or effect of any rule change or of any action taken by the Corporation pursuant thereto.

Rule 707. Suspension of Rules

(a) Extension, Waiver, or Suspension. The times fixed by these Rules~~, the Procedures,~~ or any regulations issued by the Corporation for taking any action(s) required by these Rules~~, the Procedures,~~ or any regulations issued by the Corporation may be extended, waived, or suspended by the Board, the Head of the Corporation, or such other officers of the Corporation as the Board may designate, whenever, in the Board's, the Head of the Corporation's, or other officers' judgment, such extension, waiver, or suspension is necessary or expedient. Any such extension, waiver or suspension under this Rule may continue in effect after the event or events giving rise thereto but shall not continue in effect for more than 60 calendar days after the date thereof unless it shall be approved by the Board within such period of 60 calendar days.

(b) Report. A written report of any such extension, waiver or suspension (other than an extension of time of less than eight (8) hours), stating the pertinent facts, the identity of the person or persons who authorized such extension, waiver, or suspension, and the reason such extension, waiver, or suspension was deemed necessary or expedient, shall be promptly made and filed with the Corporation's records.

Rule 708. Limitations on Liability

(a) Third Parties Generally. Notwithstanding any affiliation between the Corporation and any other person, including another clearing agency, except as otherwise expressly provided by written agreement between the Corporation and such other person:

(i) the Corporation shall not be liable for any obligations of such other person nor shall the Guaranty Fund or other assets of the Corporation be available to such other person (or any person claiming through such other person) for any purpose, and no Member or User shall assert against the Corporation any claim based upon any obligations of any other person to such Member or User; and

(ii) such other person shall not be liable for any obligations of the Corporation, nor shall the Guaranty Fund or any other assets of such other person be available to the Corporation (or any person claiming through the Corporation) for any purpose, and no Member or User shall assert against such other person any claim based upon any obligations of the Corporation to such Member or User.

(b) Liability Provisions.

(i) The Corporation will not be liable for any action taken, or any delay or failure to take any action, hereunder or otherwise, to fulfill the Corporation's obligations to its Members or Users other than for losses caused directly by the Corporation's willful misconduct or violation of federal securities laws for which there is a private right of action.

(ii) Except as otherwise expressly provided by written agreement between the Corporation and a third party, including another clearing agency, the Corporation will not be liable for the acts, delays, omissions, bankruptcy, or insolvency of such third party, including, without limitation, any Bank, Securities Settlement Bank, depository, custodian, sub-custodian, clearing or settlement system, transfer agent, registrar, data communication service, or delivery service, unless the Corporation was engaged in willful misconduct or was in violation of federal securities laws for which there is a private right of action in selecting such third party.

(iii) Under no circumstances will the Corporation be liable for any indirect, consequential, incidental, special, punitive, or exemplary loss or damage (including, but not limited to, loss of business, loss of profits, trading losses, loss of opportunity, and loss of use) however suffered or incurred, regardless of whether the Corporation has been advised of the possibility of such damages or whether such damages otherwise could have been foreseen or prevented.

(iv) Except in instances where there has been a finding of willful misconduct, the Corporation, its directors, officers, or employees shall have no responsibility or liability for any losses, damages, costs, or expenses (including, but not limited to, loss of profits, loss of use, direct, indirect, incidental, or consequential damages) arising from:

(A) any failure, error, malfunction, or any fault in delivery, transmission, recording of any transmissions, including the form or content of any materials handled by the Corporation or the improper or unauthorized removal from the Corporation's facilities of any such materials;

(B) ~~(E)~~ any error, delay, omission, suspension, inaccuracy, or termination, whether in the transmission of a transaction or instruction to or from Members, Users, other clearing agencies, other third parties, or otherwise; or

(C) ~~(F)~~ any other cause in connection with the furnishing, performance, maintenance, use of, or inability to use all or any part of the services provided by the Corporation.

(v) The Corporation shall not have any obligation or responsibility to preserve, protect, collect or realize upon, and under no circumstances shall the Corporation be liable for, any loss or diminution in value or depreciation in the margin or other collateral maintained pursuant to these Rules.

(vi) The Corporation shall not be liable for any other obligations, including but not limited to, obligations of a User to a non-User, obligations of a Member to another Member of the Corporation who is acting for ~~him~~them as broker, or obligations of a Member to a User authorized by such Member.

Rule 709. Release of Clearing Data

(a) Definition of Clearing Data. The term "Clearing Data" means, for purposes of this Rule, transaction and other data received by the Corporation in conducting its clearance and/or settlement processes, along with such data, reports, or summaries thereof that it may produce resulting from its processing of such data.

(b) Release to Member or User. Absent valid legal process or except as otherwise provided in this Rule 709 or any other Rule, the Corporation will only release Clearing Data relating to a particular Member or User to such Member or User upon its written request; provided, however, that the Corporation may release Clearing Data relating to a particular User to a Member that authorizes that User, upon written request of the authorizing Member.

(c) Release to Others. The Corporation, in its discretion, may release Clearing Data relating to Members or Users to a regulatory organization, self-regulatory organization, another clearing agency or to a derivatives clearing organization under the oversight of the CFTC in connection with any cross-margining program for Eligible Securities Transactions and related futures or other derivatives products clearing by such derivatives clearing organization. The Corporation may also release Clearing Data as required by law or regulation.

(d) Release of Anonymized Clearing Data. The Corporation, in its sole discretion, may release Clearing Data in an anonymized form to others, provided that the form of the data prevents the disclosure, whether patently or in easily discernible format, of proprietary and/or confidential, financial, operational, or trading data of a particular Member or User or group of Members or Users. The Corporation, in its discretion, will establish the conditions under which it will release such data and the fees, if any, to be paid to receive such data. The Corporation

will post to its website basic data with respect to the volume and values of Eligible Securities Transactions cleared through the Corporation.

(e) No Limitation of Self-Regulatory Obligations. Nothing in this Rule 709 shall be construed to limit the Corporation's obligations as a self-regulatory organization to cooperate and share data with other regulatory and self-regulatory organizations for regulatory purposes.

Rule 710. Emergency Resolutions

(a) Emergencies. If the Head of the Corporation determines that an emergency situation exists in which the financial integrity of the Corporation is threatened, the normal functioning of the Corporation has been or is likely to be disrupted, or the financial or operational condition of a Member, a User or one of their Affiliates is such that to allow that Participant to continue its operation would jeopardize the integrity of the Corporation, or negatively impacts the financial markets by introducing an unacceptable level of uncertainty, volatility or risk, whether or not the Participant continues to meet the required minimum participation requirements, they may empanel the Global Head of Clearing & Post-Trade Services, the Chairman of the Board and the Chairman of the Risk Management Committee ("CMESC Emergency Financial Committee").

(b) Extent of Resolutions. Such panel shall be duly authorized and, upon a unanimous vote of the panel, be empowered to order (a) an immediate position limitation, (b) an immediate suspension of the Member or User, (c) that all open trades of said Member or User be for liquidation only, (d) the liquidation or transfer of all or a portion of the open positions of the Member or User, (e) additional initial margin to be deposited with the Corporation (f) refusal to accept new transactions, (g) establishment of a settlement price regardless of the existing market price, (h) the suspension of operations or modification of hours and/or (i) any other action or combination of actions necessary to protect the financial integrity of the Corporation. All activities and operations of the Corporation, including transactions, accounts, and positions of Members and Users, are subject to the exercise of emergency resolutions.

(c) Right to Hearing. The Member or User affected by action taken shall be notified and may request a hearing before the Board. In the event of suspension, the Head of the Corporation shall, promptly after a suspension, set the matter for hearing before the Board for final determination.

(d) Effect of Action. To the extent that the panel orders that all open trades of a Member or User be for liquidation only, or the panel orders the liquidation or transfer of all of

the open positions of a Member, Rule 903 shall apply and the Member or User shall be treated as a withdrawing Member or User, as applicable.

(e) Termination. Any emergency resolutions so adopted or declared may be terminated either by the terms of the emergency resolution, or by action of the CMESC Emergency Financial Committee or the Board. If declared by the CMESC Emergency Financial Committee, an emergency resolution may be terminated by the terms of the emergency resolution, by action of the CMESC Emergency Financial Committee, or by action of the Board regardless of the terms of the resolution or action of the CMESC Emergency Financial Committee.

(f) Liability. Without limiting any other provisions of the Rules ~~and Procedures~~, the Corporation, the Board, and the Corporation's officers and employees are not liable for losses incurred by Members, Users, or any other persons as a result of actions reasonably taken in response to such emergency resolutions and/or physical emergencies.

(g) Report. A written report of the adoption or declaration of emergency resolutions pursuant to this Rule 710, stating the pertinent facts, the identity of the person or persons who adopted or declared resolutions pursuant to this Rule 710, and the reason such resolutions were deemed necessary, shall be promptly made and filed with the Corporation's records. Any such emergency resolution may continue in effect after the event or events giving rise thereto but shall not continue in effect for more than sixty (60) calendar days after the date thereof unless it shall be approved by the Board ~~of Directors~~ within such sixty (60) calendar day period.

Rule 711. Contracts

The Board ~~of Directors~~ may authorize any officer(s) or agent(s) to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances.

Rule 712. Minimum Liquid Net Asset Requirement

Consistent with Rule 17Ad-22(e)(15)(ii) under the Securities Exchange Act, the Corporation shall hold liquid net assets funded by equity in an amount at least equal to the greater of either (x) six months of the Corporation's current operating expenses, as measured by the Corporation, or (y) the amount determined by the Board to be sufficient to ensure a recovery or orderly wind-down of its critical operations and services. The amount of liquid net assets funded by equity that must be held pursuant to this Rule 712 shall be determined based on a consideration of the Corporation's general business risk profile and the length of

time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services. The liquid net assets shall be in addition to resources held to cover Member or User Defaults, other risks covered under the credit risk standard in Rule 17Ad-22(b)(3) or (e)(4)(i) to (iii), and liquidity risk standard in Rule 17Ad-22(e)(7)(i) and (ii). The liquid net assets shall be of high quality and sufficiently liquid to allow the Corporation to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.

Rule 713. Disclosures ~~regarding~~Regarding Certain Material Rules~~,~~ and Policies~~, and Procedures.~~

The Corporation shall publish and update disclosures regarding certain of its material Rules~~,~~ and policies~~, and Procedures~~ consistent with Rule 17Ad-22(e)(23)(iv) and (v) under the Securities Exchange Act.

Rule 714. Corporation Default

(a) In the event of a ~~"~~Corporation Default~~"~~ pursuant to ~~paragraph~~ Rule 714(c)(ii) ~~of this Rule 714~~:

(i) All transactions that have been novated pursuant to the Rules in the Chapter for the relevant Clearing Service but have not yet been settled, and any rights and obligations of the parties thereto, shall be immediately terminated and the Corporation shall determine a single net amount owed by or to each Member, each Supported User and each Independent User with respect to its transactions by applying the rights of close-out, taking into account the other provisions of these Rules ~~and the Procedures~~ relating to allocation of losses, including in the event that any Member or User is a Defaulting Member or Defaulting User.

(ii) The Corporation shall notify each Member, each Member with Supported Users, and each Independent User of the occurrence of the Corporation Default and of the net amount owed by or to each Member, each Supported User, and each Independent User in respect to its transactions. Each Member that has been notified that it or any of its Supported Users owes an amount to the Corporation, and each Independent User that has been notified that it owes an amount to the Corporation, shall pay that amount on or prior to the date specified by the Corporation, subject to any applicable set-off rights.

(b) Any Member, Supported User or Independent User that has a net claim against the Corporation shall be entitled to payment thereof along with other Members', other Users',

and other creditors' claims pursuant to the underlying contracts with respect thereto, these Rules~~, the Procedures,~~ and applicable law.

(c) Notwithstanding anything to the contrary set forth in these Rules~~ or the Procedures~~, the following events shall constitute a Corporation Default:

(i) Failure by the Corporation, in connection with a transaction under these Rules~~ or the Procedures~~, to comply with an undisputed obligation to pay money, when due, to a Member or User for a period of five (5) Business Days from the date that the Corporation receives notice from the Member or User of the past due obligation; provided, however, that this clause shall not apply to (x) obligations of the Corporation to Defaulting Members or Defaulting Users, or Members or Users for whom the Corporation has ceased to act pursuant to Chapter 9 of these Rules, and (y) any payment or delivery which the Corporation satisfies by alternate means as set forth in these Rules ~~or the Procedures~~.

(ii) The Corporation (x) institutes or has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation, and, in the case of any such proceeding or petition presented against it, such proceeding or petition results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for the Corporation's winding-up or liquidation, or (y) approves resolutions authorizing any proceeding or petition described in clause (x) above.

(d) The Corporation and its Members and Users intend that these Rules ~~and the Procedures~~ be interpreted in relation to certain terms (identified by quotation marks) that are defined in the FDICIA as follows.

(i) The Corporation is a "clearing organization";

(ii) Any obligation of a Member or User to make a payment to the Corporation, or of the Corporation to make a payment to a Member or User, is a "covered clearing obligation" and a "covered contractual payment obligation";

(iii) An entitlement of a Member (acting for itself or on behalf of a Supported User) or an Independent User to receive a payment from the Corporation, or of the Corporation to receive a payment from a Member (acting for itself or on behalf of a Supported User) or Independent User, subject to a netting contract, is a "covered contractual payment entitlement";

(iv) Each Member and each User (solely for purposes of circumstances where the FIDICA definition applies) is a "member" of the "clearing organization";

(v) The amount by which the covered contractual payment entitlements of a Member or User or of the Corporation exceed the covered contractual payment obligations of such Member, User, or the Corporation after netting pursuant to Rule 1501 or this Rule 714, is its "net entitlement";

(vi) The amount by which the covered contractual payment obligations of a Member, User, or the Corporation exceed the covered contractual payment entitlements of such Member, User or the Corporation after netting pursuant to Rule 1501 or this Rule 714 is its "net obligation"; and

(vii) These Rules ~~and the Procedures~~, together with all other agreements between the Corporation and the Member and User, are a "netting contract," the margin and other provisions of these Rules ~~and the Procedures~~ granting an interest in any funds or property of a Member or User to the Corporation constitute a "security agreement or arrangement or other credit enhancement" relating to such netting contract, and the close-out process set forth in Rule 405, Rule 1501, Rule 1507 or this Rule 714 constitutes "terminating, liquidating, accelerating, and netting" of obligations.

Rule 715. Operation as Covered Clearing Agency; Recovery and Wind-Down

(a) The Corporation intends to operate in accordance with the regulations applicable to a Covered Clearing Agency, as that term is defined in Rule 17Ad-22(a)(5) under the Securities Exchange Act.

(b) Consistent with this Rule 715, the Corporation shall prepare recovery and orderly wind-down plans consistent with the requirements for a Covered Clearing Agency.

Rule 716. Regulatory Services Agreement

The Corporation may enter into a regulatory services agreement with another self-regulatory organization pursuant to which such other self-regulatory organization will conduct examination, investigation, enforcement, and other functions on behalf of the Corporation.

Rule 717. Forms, Media and Technical Specifications

From time to time the Corporation may specify various forms which Members and Users must use to submit instructions and data to the Corporation and which the Corporation uses to report transactions and information to Members and Users. The information called for

by such forms may be submitted or received in such form and format as the Corporation shall from time to time permit. Submission of such information in other media shall be made in accordance with specifications determined from time to time by the Corporation.

CHAPTER 8. FEES AND CHARGES

Rule 801. Charges for Services Rendered

(a) Schedule of Charges. Each Member and User shall pay ~~such~~ fees and charges to the Corporation for services rendered by the Corporation as set forth in ~~the~~these Rules and ~~Procedures and~~ approved by the Board on a reasonable and non-discriminatory basis.

(b) Charges for Unusual Expenses. A Member or User may be charged for any unusual expenses caused directly or indirectly by such Member or User, including, but not limited to, the cost of producing records pursuant to court order or other legal process in any litigation or other legal proceeding, whether or not such Member or User is a party to such litigation or proceeding.

(c) Bills Rendered. The Corporation shall bill each Member, with respect to such Member and its Supported Users, and each Independent User on a monthly basis for charges for the preceding month. All such charges shall be reflected as a charge to the appropriate account on such date as may be specified by the Corporation from time to time~~.~~

(d) Schedule of Fees. The fees and charges arising from the provision of the Corporation's services will be set out in a Schedule of Fees specific to each Eligible Securities Transaction, which the Corporation will publish on its website.

CHAPTER 9. CEASING TO ACT AND OTHER RESTRICTIONS ON ACCESS TO SERVICES

Rule 901. Ceasing to Act in Event of Insolvency

(a) Member's and User's Obligation to Inform of Insolvency. A Member or User that (i) fails to perform its material contracts or obligations, (ii) determines that it is unable to ~~do so~~perform its material contracts or obligations, or (iii) is insolvent, shall immediately notify the Corporation in writing via e-mail or such other system as the Corporation may designate no later than the same calendar day as the day on which the Member or User first becomes aware of its noncompliance or insolvency.

(b) Insolvency. A Member or User shall be treated by the Corporation in all respects as insolvent:

(i) upon receipt of the notice as set forth in ~~paragraph~~ Rule 901(a) ~~of this Rule 901~~; provided, however, that a Member or User need not be treated as insolvent in the event such Member or User (without being deemed to have admitted its liability thereunder) provides or posts, within the timeframe determined by the Corporation in its sole discretion, a bond, indemnity, or guaranty from a third party that the Corporation, in its sole discretion, deems satisfactory to ensure the performance of the Member's or User's obligations;

(ii) in the event that the Member or User is determined to be insolvent by the SEC or any other regulator with jurisdiction over such Member or User, or any self-regulatory organization to which such Member or User belongs;

(iii) if the Member or User belongs to the Securities Investor Protection Corporation, in the event that a court finds that the Member or User meets any one of the conditions set forth in Section 5(b)(1)(A) of the Securities Investor Protection Act of 1970, as amended; or

(iv) in the event of the entry or the making of a decree or order by a court, regulator, or other supervisory authority of competent jurisdiction:

(A) adjudging the Member or User as bankrupt or insolvent;

(B) approving as properly filed a petition seeking reorganization, arrangement, liquidation, dissolution, adjustment, or composition of or in respect of the Member or User under the Bankruptcy Code or any other applicable federal, state, or other U.S. or non-U.S. law, including any bankruptcy, insolvency, reorganization, liquidation, dissolution, or similar law;

(C) appointing a receiver, custodian, liquidator, provisional liquidator, administrator, provisional administrator, assignee, trustee, or sequestrator (or other similar official) or establishing a resolution authority for the Member or User for any substantial part of its property;

(D) ordering the winding up or liquidation of its affairs; or

(E) consenting to the institution by the Member or User of proceedings to be adjudicated as bankrupt or insolvent;

(v) in the ~~filing by~~event that the Member or User ~~of~~has filed a petition, or any case or proceeding, seeking reorganization or relief, under the Bankruptcy Code or any other applicable federal, state, or other U.S. or non-U.S. law, including any bankruptcy, insolvency, reorganization, liquidation, dissolution, or similar law or the consent by the Member or User to the filing of any such petition, case, or proceeding or to the appointment of a receiver, custodian, liquidator, assignee, trustee, sequestrator, or other similar official or establishing a resolution authority for the Member or User or for any substantial part of its property; or

(vi) in the event that the Member or User has made an assignment for the benefit of its creditors, or the Member or User has admitted in writing its inability to pay its debts generally as they become due, or the Member or User has taken corporate action in furtherance of any such action.

(c) Summary Action by the Corporation. In the event that a Member or User is insolvent pursuant to ~~paragraph~~ Rule 901(b) ~~of this Rule 901~~, the Corporation shall deem the Member or User to be in ~~default~~Default and cease to act for the Member or User~~,~~ except as otherwise determined by the Corporation in a particular case. Ceasing to act for a Member or User pursuant to this Rule 901 shall be a summary action as set forth in Rule 1012, consistent with the provisions regarding summary action set out in Section 17A(b)(5)(C) of the Securities Exchange Act.

(d) The Head of the Corporation or their designee shall have the authority to decide that the Corporation shall cease to act for a Member or User pursuant to this Rule 901.

Rule 902. Ceasing to Act for Member or User Based on Other Grounds

(a) Cause for Ceasing to Act. The Corporation may deem a Member or User to be in ~~default~~Default and cease to act for the Member or User with respect to a transaction, or transactions generally, in the event that:

(i) the Member or User has failed to perform any of its obligations to the Corporation set forth in these Rules ~~or Procedures~~, or has violated any Rule or Procedure of, or any agreement with, the Corporation, except that failing to deliver securities shall not be grounds for the Corporation to cease to act unless such failure occurs repeatedly, as set forth in ~~paragraph~~ Rule 1506(a) ~~of Rule 1506~~;

(ii) without limiting the generality of the foregoing clause (i), the Member or User has failed to make to the Corporation, on a timely basis, any required payment or deposit, including any fee, fine, or charge, set forth in these Rules or ~~Procedures or~~ has failed to pay cash or deliver securities to satisfy its trade settlement obligations; for the avoidance of doubt, this includes where a Member that has authorized any Supported User fails to meet its obligation to post margin or pay Outstanding Exposure Settlement for a Supported User Account as required under Rule 501 and Rule 506, or where a Member that has authorized any User fails to meet its obligation to guarantee losses in excess of the User's initial margin;

(iii) the Member or User has been and is expelled or suspended from any self-regulatory organization, or the Member's or User's appropriate regulatory authority has terminated the Member's or User's regulatory status or directed the Member or User to cease conducting business;

(iv) the Corporation has reasonable grounds to believe that the Member or User, or an Associated Person of a Member or User, has been responsible for any fraudulent or dishonest conduct, or breach of fiduciary duty, or has made a material misstatement or omitted to state a material fact in any statement to the Corporation or any officer or employee of the Corporation in connection with its application to become a Member or User or thereafter, in connection with any transaction processed or service furnished by the Corporation;

(v) the Corporation has reasonable grounds to believe that the Member or User is in or is approaching significant financial or operational difficulty or will otherwise be unable to meet its obligations to the Corporation or other Members and Users; or

(vi) the Corporation otherwise has reasonable grounds to believe that ceasing to act is necessary either for the protection of the Corporation or any of the other Members or Users, as applicable, or to facilitate the orderly and continuous performance of the Corporation's services.

(b) Summary Action by the Corporation. Ceasing to act for a Member or User pursuant to ~~paragraph~~ Rule 902(a) ~~of this Rule 902~~ may be a summary action as set forth in

Rule 1012, consistent with the provisions regarding summary action set forth in Section 17A(b)(5)(C) of the Securities Exchange Act, provided that the requirements of ~~paragraph~~ Rule 1012(b) ~~of Rule 1012~~ are satisfied. If a particular action by the Corporation pursuant to ~~paragraph~~ Rule 902(a) ~~of this Rule 902~~ is not taken as a summary action, the action shall be subject to the provisions of Rule 1002.

(c) The Head of the Corporation or their designee shall have the authority to decide that the Corporation shall deem a Member or User to be in ~~default~~Default and cease to act for a Member or User pursuant to this Rule 902. In making such a determination or in deciding whether to prohibit or limit the access of a Member or User to services offered by the Corporation pursuant to Rule 907, the Head of the Corporation or his or her designee may consider all information available to them, including, without limitation: reports submitted by Members and Users or information gathered pursuant to Chapter 3 of the Rules or the Rules for the relevant Clearing Service(s); the Corporation's periodic reviews of Members and Users pursuant to Rules 309 and 311; and information gathered by, and determinations made by, the Corporation's staff relating to internal assessments of Members and Users.

Rule 903. Voluntary Withdrawal

(a) Voluntary Withdrawal of Member or User Status.

(i) ~~(a)~~ Voluntary Withdrawal of Member Status. A Member ~~or User~~ may voluntarily withdraw ~~as a~~its Member ~~or User~~status by providing ~~the Corporation with~~at least ten (10) Business Days' written notice of ~~such~~its intended withdrawal~~; provided, however,~~ to the Corporation~~, in its~~ ("Member Withdrawal Notice"). The Corporation may, in its sole discretion, ~~may accept~~confirm such withdrawal within a shorter notice period. ~~Such~~The Member's withdrawal will not be effective until ~~accepted~~confirmed by the Corporation. The Corporation's ~~acceptance of a Member's withdrawal~~confirmation of the Member Withdrawal Notice shall be evidenced by a notice to all Members and Users via an Advisory announcing the withdrawal of the Member and the effective date of such withdrawal (hereinafter the "Member Withdrawal Date"), and, if applicable, announcing the termination of the Member's authorization of Users ("Former Users") with respect to clearing transactions through the Corporation

(ii) Voluntary Withdrawal of User Status. A User may voluntarily withdraw its status as a User by providing at least ten (10) Business Days' written notice of its intended withdrawal to the User's authorizing Member(s) and the Corporation ("User Withdrawal Notice"). The Corporation may, in its discretion, confirm such withdrawal within a shorter notice period. The User's withdrawal will not be effective until confirmed by the Corporation. The Corporation's ~~acceptance of~~

~~a User's withdrawal~~confirmation of the User Withdrawal Notice shall be evidenced by a notice to all Members and Users via an Advisory announcing the withdrawal of the User and the effective date of such withdrawal (hereinafter, the "User Withdrawal Date"). As of the User Withdrawal Date, the User's Member shall cease to authorize such User with respect to clearing transactions through the Corporation.

(iii) No withdrawal of a Member or User may be effective until the Member or User has made arrangements satisfactory to the Corporation with regard to its obligations to the Corporation and with regard to the handling of transactions open at the time of withdrawal. The Corporation shall cease to act for a Member or User that has withdrawn with respect to transactions submitted as of the Member Withdrawal Date or User Withdrawal Date.

(b) If a pro rata charge against a Member's contribution to the Guaranty Fund is made pursuant to Rule 406 or a Default Assessment is made pursuant to Rule 402, the Member may give written notice to the Corporation of its election to terminate its business with the Corporation; however, such pro rata charge against the Member's contribution and/or Default Assessment shall nevertheless be made.

(c) Notwithstanding any notice provided pursuant to ~~paragraph~~ Rule 903(b) ~~of this Rule 903~~, the Corporation may make additional pro rata charges against the Member's contribution to the Guaranty Fund as set forth in Rule 406 or a Default Assessment as set forth in Rule 402 at any time during and after the notice period until such time as the Member's voluntary withdrawal as a Member becomes effective pursuant to this Rule 903.

Rule 904. Post-Cessation Procedure

As of the time the Corporation has ceased to act for a Member or User with respect to either a particular transaction(s) or transactions generally pursuant to Rules 901, 902, or 903, the Corporation shall decline to accept or process data with regard to the transaction(s) with respect to which it has ceased to act, unless the Corporation determines otherwise in order to promote an orderly settlement process. Within such time period as the Corporation shall determine, all transactions and open positions of the Member or User must be completed or closed, or, with the approval of the Corporation, another Member or User must be substituted thereon. When a Member's or User's status as Member or User with the Corporation is terminated, the Corporation will return (x) any contributions to the Guaranty Fund of the Member pursuant to and within the time allotted in Rule 415, so long as the Member does not have any unmet or outstanding obligations to the Corporation, and (y) within such time period as the Corporation shall determine, any margin deposited by the Member or User that is owed to the Member or User.

Rule 905. Notice of Cessation

The Corporation shall promptly notify all Members and Users, via an Advisory, if the Corporation has ceased to act for a Member or User pursuant to Rules 901 or 902 with respect to a specific transaction(s) or transactions generally. Such notice shall state the date of such cessation.

Rule 906. Post-Cessation Rights and Remedies of Corporation

After the Corporation has ceased to act for a Member or User with respect to either a particular transaction(s) or transactions generally pursuant to Rules 901, 902, or 903, the Corporation shall nevertheless have the same rights and remedies in respect of cash or securities due from such Member or User, or any liability incurred as a result of such Member's or User's actions, or on behalf of such Member or User, as though the Corporation had not ceased to act for it. If the Corporation ceases to act for the Member or User, including by terminating the Member or User's status with the Corporation, the Member or User remains responsible for discharging any obligations it incurred prior to such cessation-to-act, including any obligations resulting in such cessation-to-act.

Rule 907. Certain Actions by the Corporation

(a) In the event that the Corporation ceases to act for a Member or User pursuant to Rules 901 or 902, the Corporation may prohibit or limit access by such Member or User to Clearing Services, including by: (i) limiting a Member or User from submitting additional transactions to the Corporation for clearing, including placing limits on the proprietary transactions of a Member and the transactions of Users authorized by such Member; (ii) suspending a Member or User from submitting additional transactions to the Corporation for clearing generally or in a specific Clearing Service; and (iii) if a Member is suspended from submitting additional transactions to the Corporation for clearing, requiring such Member to transfer its authorization of any User, along with such User Account, to another Member. Any such prohibitions or limitations on the Member's or User's access to services offered by the Corporation shall be imposed only in circumstances where, and to the extent that, their ~~object~~objective is to control the exposure of the Corporation to risk. If a Member or User ceases to comply with any of the applicable requirements for Member status or User status set forth in the applicable Rules, the Corporation may, for a period of time beginning with and including on the date on which the Member's or User's failure commenced and until a date determined by the Corporation, in its sole discretion, subject such Member or User to (i) one or more fines pursuant to Chapter 10 of the Rules; and/or (ii) additional requirements or restrictions pursuant to Rule 307(d). The Corporation may also terminate the Member's or User's status as a Member or User with the Corporation.

(b) An action by the Corporation pursuant to ~~paragraph~~ Rule 907(a) ~~of this Rule 907~~ may be taken as a summary action pursuant to Rule 1012, consistent with the provisions regarding summary action set forth in Section 17A(b)(5)(C) of the Securities Exchange Act, provided that the requirements of ~~paragraph~~ Rule 1012(b) ~~of Rule 1012~~ are satisfied. If a particular action by the Corporation pursuant to ~~paragraph~~ Rule 907(a) ~~of this Rule 907~~ is not taken as a summary action, the action shall be subject to the provisions of Rule 1002.

(c) The Corporation may choose not to cease to act for a Member or User pursuant to Rules 901 or 902 if the Corporation determines that, depending upon the specific circumstances and the record of the Member or User, it is appropriate instead to establish for such Member or User a time period (the "Noncompliance Time Period") during which the Member or User must use every effort to come back into compliance with the applicable requirements for Member or User status. At the end of the Noncompliance Time Period, the Corporation shall determine whether the Member or User is in compliance with the applicable requirements for Member or User status set forth in the Rules, including Chapter 3 of the Rules. In the event the Member or User is not in compliance with such requirements by the end of the Noncompliance Time Period, the Corporation shall cease to act for such Member or User pursuant to this Rule 902. Such cessation to act shall occur within such time period as the Corporation shall determine. Notwithstanding anything to the contrary set forth in Rules 901 and 902, if the Corporation, in its sole discretion, determines that a Member's financial or operational condition or User's operational condition has significantly deteriorated during a Noncompliance Time Period, the Corporation may cease to act for the Member or User pursuant to Rules 901 and 902.

CHAPTER 10. DISCIPLINARY ACTIONS AND OTHER ADVERSE ACTIONS

Rule 1001. Authority to Impose Disciplinary Sanctions and Rules Governing Disciplinary Actions and Other Adverse Actions

(a) This Chapter sets out the Corporation's authority to impose disciplinary sanctions on Members and Users and sets forth the rules governing hearings used to adjudicate disciplinary actions and other adverse actions taken by the Corporation.

(b) The Corporation may discipline any Member or User for a violation of any provision of the Rules ~~or the Procedures~~ of the Corporation, such Member's or User's agreements with the Corporation, or for any error, delay, or other conduct detrimental to the Corporation, or for not providing adequate facilities for such Member's or User's business with the Corporation, by expulsion, suspension, limitation of or restriction on activities, functions, and operations, fine or censure, or any other appropriate sanction.

Rule 1002. Notice of Disciplinary Actions and Other Adverse Actions

(a) Before the Corporation imposes any disciplinary sanction on a Member or User, other than pursuant to a summary action as set forth in Rule 1012, the Corporation shall notify such Member or User in writing of the specific charges against such Member or User and its right to a hearing.

(b) At the time the Corporation takes any of the following adverse actions with respect to a Member, User, or other person, other than pursuant to a summary action as set forth in Rule 1012, the Corporation shall notify such Member, User, or other person in writing of the action to be taken; the specific grounds for the action under consideration; and such Member's, User's, or other person's right to a hearing:

(i) Disapproving an application for Member or User status (including the disapproval of an application for Member or User status with respect to a specific Eligible Securities Transaction for which the Corporation offers clearing services); or

(ii) Taking any other action which prohibits or limits access by a Member, User, or other person to services offered by the Corporation (other than imposing a disciplinary sanction).

Rule 1003. Response to Notice of Disciplinary Action and Other Adverse Actions

(a) The Member or User receiving a notice of disciplinary charges pursuant to ~~paragraph~~ Rule 1002(a) ~~of Rule 1002~~ ("Respondent") shall have fifteen (15) Business Days after service of such notice to file a written answer thereto. The answer shall be filed with the Secretary

of the Corporation, and shall include a request for a hearing. The answer shall specifically admit or deny each allegation contained in the notice of charges, and the Respondent shall be deemed to have admitted any allegation not specifically denied. The answer may also contain any defense which the Respondent wishes to submit and may be accompanied by documents in support of their answer or defense. If an answer is not filed within the time prescribed in this ~~paragraph~~ Rule 1003(a) or any extension thereof granted pursuant to Rule 1008, the Corporation shall furnish to the Respondent a final request for an answer, specifying a time by which an answer must be filed and a sanction which will be imposed if an answer is not filed within that time. If an answer is not filed by the time specified, the charges against the Respondent shall be deemed admitted, and the sanction specified in the final request shall be imposed without further proceedings and the Respondent shall be notified thereof in writing.

(b) The Member, User, or other person receiving notice of an adverse action by the Corporation with respect to the Member, User, or other person pursuant to ~~paragraph~~ Rule 1002(b) ~~of Rule 1002~~ ("Interested Person") shall have fifteen (15) Business Days after service of such notice to file a written response thereto. The response shall be filed with the Secretary of the Corporation and shall include a request for a hearing. The response shall state the action complained of and the specific reasons why the Interested Person takes exception to such action and the relief sought. The response may be accompanied by documents in support of the Interested Person's response. If a response is not filed within the time prescribed in this ~~paragraph~~ Rule 1003(b) or any extension thereof granted pursuant to Rule 1008, the Corporation shall furnish to the Interested Person a final request for a response, specifying a time prior to which a response must be filed and the adverse action which will be taken by the Corporation if a response is not filed within that time. If a response is not filed prior to the time specified, the adverse action specified in the final request shall be taken without further proceedings and the Interested Person shall be notified thereof in writing.

Rule 1004. Hearing

(a) Scheduling the Hearing. With respect to a disciplinary action or adverse action to be taken against a Respondent, if an answer has been filed in a timely fashion, then the Corporation shall (unless the Respondent and the Corporation have stipulated to the imposition of an agreed-upon sanction) schedule a hearing on the noticed charges.

(b) Composition of Hearing Panel. A hearing panel ("Hearing Panel") will be composed of three disinterested members of the Board ~~of Directors~~ appointed for the purpose by the Chairman of the Board ~~of Directors~~. The Corporation's Head of Legal, or their designee, shall serve as counsel to the Hearing Panel.

(c) Notice of Hearing. The Respondent or Interested Person shall be given not less than three (3) ~~days~~Business Days advance notice of the place and time of the hearing.

(d) Hearing Procedure. At the hearing, the Respondent or Interested Person shall be afforded the opportunity to be heard and to present evidence on its behalf and may be represented by counsel. The Corporation will be represented by staff or designee of the Corporation.

(e) Hearing Record. A verbatim record of the hearing shall be prepared, and the cost of the transcript may, in the discretion of the Hearing Panel, be charged in whole or in part to the Respondent or Interested Person.

Rule 1005. Decision

(a) As soon as practical after the conclusion of the hearing, the Hearing Panel shall furnish the Respondent or Interested Person, the Regulatory Oversight Committee, and the Board with a written statement of its decision.

(b) If the decision imposes a disciplinary sanction, the written statement shall set forth:

(i) any act or practice in which the Respondent has been found to have been engaged~~,~~ or which the Respondent has been found to have omitted;

(ii) the specific provisions of the Rules ~~or Procedures~~ of the Corporation which any such act, practice, or omission has been deemed to violate; and

(iii) the sanction imposed and the reasons therefor.

(c) If the decision imposes an adverse action set forth in ~~paragraph~~ Rule 1002(b) ~~of Rule 1002~~, the written statement shall set forth the specific grounds on which the denial, prohibition, or limitation is based.

Rule 1006. Settlement

Prior to the issuance of the written statement of decision, the Respondent and the Corporation may agree to a settlement resolving the disciplinary action or adverse action. The proposed settlement must be submitted to a Hearing Panel, and must include an agreed stipulation of facts and a specified sanction or adverse action. Where the Hearing Panel accepts the proposed settlement, it shall promptly issue a decision consistent with the terms of such settlement. Where the Hearing Panel rejects the proposed settlement, it shall notify the parties and the matter shall proceed as if the offer had not been made, and the offer and all documents relating thereto shall not become part of the record. The decision of the Hearing Panel to accept or reject a proposed settlement shall be final and not subject to appeal.

Rule 1007. Effective Date

Any action or proposed action of the Corporation as to which a Member, User, or other person has the right to a hearing pursuant to this Chapter 10 shall be deemed final:

(a) when the Member, User, or other person stipulates to the taking of such action by the Corporation, at which time the Corporation shall furnish the Member, User, or other person with a statement containing the information set forth in Rule 1005; or

(b) upon the expiration of the applicable time period provided in the final request for the filing of an answer or response as set forth in Rule 1003; or

(c) if a hearing has been held pursuant to Rule 1004, when the Corporation furnishes the Respondent or Interested Person with the Hearing Panel's decision, and, as applicable:

(i) if no request for an appeal is filed, upon the expiration of the applicable time period for filing a request for an appeal of the Hearing Panel's decision pursuant to Chapter 11 of these Rules;

(ii) if a request for an appeal of the Hearing Panel's decision is timely filed, upon notice to the Respondent or Interested Person of the denial of the request for an appeal; or

(iii) if a request for an appeal of the Hearing Panel's decision is granted, upon notice to the Respondent or Interested Person of the Board's decision to affirm or modify the decision from which the appeal was made.

Rule 1008. Extension of Time Limits

Any time limit set forth in this Chapter 10 may be extended by the Corporation or by the body having jurisdiction over the matter in respect of which the time limit is imposed.

Rule 1009. Alternative Procedures

The Corporation may at any time establish procedures for a hearing not otherwise set forth in these Rules with respect to any action or proposed action of the Corporation so long as the Member, User, or other person is given notice and an opportunity to be heard and there is a record of the decision along with the reasons for that decision.

Rule 1010. Continuing Jurisdiction

Any Member or User shall continue to be subject to the disciplinary jurisdiction of the Corporation following termination of Member or User status with respect to matters that occurred

prior to such termination, provided that written notice of the commencement of an inquiry into such matters is given by the Corporation to such former Member or User within one (1) year of receipt by the Corporation of written notice of the termination of such person's status as a Member or User.

Rule 1011. Imposition of Fines for Minor Violations of Rules

(a) General. In lieu of commencing a disciplinary proceeding as set forth in Rules 1001 through 1009, the Corporation may, subject to the requirements set forth in this Rule 1011, impose a fine, not to exceed two thousand five hundred dollars ($2,500), on any Member or User for any violation of a Rule or Procedure of the Corporation that the Corporation determines is minor in nature. Any fine imposed pursuant to this Rule and not contested shall not be publicly reported, except as may be required by Rule 19d-1 under the Securities Exchange Act or as may be required by any other regulatory authority.

(b) Written Statement. In any action taken by the Corporation pursuant to this Rule 1011, the person against whom a fine is imposed shall be served with a written statement, signed by an authorized officer of the Corporation, setting forth:

(i) the Rule or Rules alleged to have been violated;

(ii) ~~(iv)~~ the act or omission constituting each such violation;

(iii) ~~(v)~~ the fine imposed for each such violation; and

(iv) ~~(vi)~~ the date by which such determination becomes final and such fine becomes due and payable to the Corporation, or such determination must be contested as set forth in ~~paragraph~~ Rule 1011(d) ~~of this Rule 1011~~, such date to be not less than fifteen (15) Business Days after the date of service of the written statement.

(c) Waiver of Review. If any person against whom a fine is imposed pursuant to this Rule 1011 pays the fine, such payment shall be deemed a waiver by such person of such person's right to a disciplinary proceeding pursuant to Rules 1001 through 1009 and any review of the matter by the Board (as set forth in Rule 1103).

(d) Contested Charges. Any person against whom a fine is imposed pursuant to this Rule 1011 may contest the Corporation's determination by filing with the Corporation, not later than the date by which such determination must be contested, a written answer meeting the requirements of an answer as set forth in Rule 1003 at which point the matter shall become a disciplinary proceeding subject to the provisions of Rules 1001 through 1009. In any such disciplinary proceeding, if the Hearing Panel determines that the Member or User is found to have violated the Corporation's Rule(s) or Procedure(s) as charged, the Hearing Panel shall also

determine if the rule violation is minor in nature. If the Hearing Panel determines that the rule violation is minor, then the Panel may only impose sanctions in accordance with this Chapter. If the Hearing Panel determines that the rule violation is not minor, then it is free to impose any disciplinary sanctions it deems appropriate.

Rule 1012. Summary Actions by the Corporation

(a) The Corporation may take the following actions with respect to a Member or User on a summary basis:

(i) ceasing to act for a Member or User pursuant to Rule 901;

(ii) ceasing to act for a Member or User pursuant to Rule 902; or

(iii) prohibiting or limiting the access of a Member or User to services offered by the Corporation pursuant to Rule 907.

(b) Any decision to take summary action pursuant to ~~paragraph~~ Rule 1012(a) ~~of this Rule 1012~~ must be based on a determination that the Member or User is in Default; the Member or User has been and is expelled or suspended from any self-regulatory organization; or the Member or User is in such financial or operating difficulty that such action is necessary for the protection of the Corporation, its Members, Users, creditors, or investors. Taking "summary action" or acting on a "summary basis," as set forth in these Rules ~~or the Procedures~~, shall mean that the Corporation, pursuant to its authority under Section 17A(b)(5)(C) of the Securities Exchange Act, takes any action with respect to a Member or User set forth in ~~paragraph~~ Rule 1012(a) ~~of this Rule 1012~~ prior to providing such Member or User with an opportunity for a hearing regarding such action. Any decision to take summary action with respect to a Member or User must be made by the Head of the Corporation or their designee.

(c) In the event the Corporation takes summary action with respect to a Member or User, the Corporation shall promptly, but no later than the end of the Business Day on which the summary action is taken, furnish any such Member or User with a written statement setting out the decision to take summary action, the specific grounds for the decision, and the Member's or User's right to a hearing as set forth in Rules 1001 through 1008, except that the Member's or User's response to such written statement, if any, must be in writing and filed promptly but no later than (2) Business Days after receipt from the Corporation of such statement; otherwise, the Member's or User's right to a hearing with respect to such summary action shall be deemed waived. Any such hearing shall be held as promptly as possible after the Corporation has taken summary action with respect to the Member or User pursuant to this Rule 1012. In the case of summary action, the Corporation and the Member or User may agree to waive the requirement set forth in ~~paragraph~~ Rule 1004(c) ~~of Rule 1004~~ that the Corporation provide not less than three (3)

days advanced notice of the place and time of the hearing. The Hearing Panel shall render its decision and furnish the Member or User with a written statement of such decision, as set forth in Rule 1005, as promptly as possible after completion of the hearing.

(d) A Member's or User's filing of a response requesting a hearing pursuant to ~~paragraph~~ Rule 1012(c) ~~of this Rule 1012~~ shall not impair the validity or stay the effect of the summary action that the Member or User seeks to have reviewed, and the Member or User shall be obligated to comply with such summary action without delay, notwithstanding the pendency of such request for hearing. Any summary action the Corporation takes pursuant to this Rule 1012 shall remain in effect until the earlier of such notice and opportunity to be heard is completed or the determination to take summary action is reversed.

(e) Notice of Summary Action. Within twenty-four (24) hours of the effectiveness of a summary action with respect to a Member or User, the Corporation shall provide notice of such action to the SEC and the appropriate regulatory agency for the Member or User (if other than the SEC), which notice shall be in the form required by Rule 19d-1 under the Securities Exchange Act~~,~~ and any other applicable statutes and rules. If the summary action is based on the determination, pursuant to Section 17A(b)(5)(C) of the Securities Exchange Act, that the Member or User is in such financial or operating difficulty that such action is necessary for the protection of the Corporation or its Members, Users, creditors, or investors, the Corporation shall also notify the appropriate regulatory agency for the Member or User subject to the Corporation's summary action that such action is necessary for the protection of the Corporation or its Members, Users, creditors, or investors.

Rule 1013. Notice of Disciplinary Sanction or Other Adverse Action

(a) If the Corporation imposes a final disciplinary sanction on any Member or User or takes any other adverse action with respect to any Member, User, or other person pursuant to this Chapter 10, the Corporation shall promptly file notice thereof with the SEC and the appropriate regulatory agency for such Member, User, or other person (if other than the SEC).

(b) When notice is required to be filed with the SEC (and, if applicable, the appropriate regulatory agency for such Member, User, or other person, if other than the SEC) pursuant to ~~paragraph~~ Rule 1013(a) ~~of this Rule 1013~~, the Corporation shall provide such notice in the form required by Section 19(d)(1) of the Securities Exchange Act and Rule 19d-1 thereunder, and any other applicable statutes and rules.

CHAPTER 11. APPEALS

Rule 1101. Right to Request an Appeal

Any aggrieved party shall have the right to request an appeal to the full Board ~~of Directors~~ from any decision of a Hearing Panel of the Corporation:

(a) disapproving an application to become a Member or User pursuant to Chapter 3;

(b) determining to cease to act on behalf of a Member or User, or determining to prohibit or limit the access of a Member or User to services offered by the Corporation, pursuant to Chapter 9;

(c) imposing a fine of $25,000 or more; or

(d) taking any other adverse action with respect to which the Corporation provides notice to the Member, User, or other person pursuant to Rule 1002;

~~(c)~~ provided, however, that an appeal shall not impair the validity of the decision appealed from unless and until the decision is reversed or modified pursuant to Rule 1104.

Rule 1102. Procedure for Appealing

(a) Appeals shall be made by filing a written notice of a request for an appeal with the Secretary of the Corporation within five (5) Business Days after notification by the Corporation of the decision from which the request for an appeal is made. The notice shall state with particularity the decision complained of, the appellant's reasons for taking exception to the decision, and the relief sought.

(b) The Board shall determine whether to grant or deny any request for an appeal filed with the Corporation pursuant to ~~paragraph~~ Rule 1102(a) ~~of this Rule 1102~~.

(c) If the Board chooses to grant a request for an appeal, the Board shall affirm, reverse, modify, or remand for further consideration the Hearing Panel's decision within ten (10) Business Days after the Board receives the notice of appeal.

(d) Appeals Process for Summary Actions. Notwithstanding ~~paragraphs~~ Rules 1102(a) ~~through~~ (c) ~~of this Rule 1102~~, the following timeframes shall apply to an appeal from a Hearing Panel decision with respect to a summary action taken by the Corporation pursuant to Rule 1012:

(i) Appeals shall be made by filing written notice of a request for an appeal with the Secretary of the Corporation within one (1) Business Day after notification by the Corporation of the decision from which the request for an appeal is made.

(ii) As soon as possible, but not later than (1) Business Day after receiving the notice of the appeal, the Board shall decide whether to grant or deny the request for an appeal and provide notice to the appellant that the appeal has been granted or denied. If the Board decides to grant the request for an appeal, the Board shall, on the same Business Day, affirm, reverse, modify, or remand for further consideration the Hearing Panel's decision; provided, however, that if the Board in its discretion determines to provide the appellant with the opportunity for a further hearing, the Board will hold a hearing and render a decision within (2) Business Days of receiving the notice of appeal.

(e) Notwithstanding the timeframe governing the appeals process provided in this Chapter 11, the Corporation and the appellant may agree on a different timeframe.

Rule 1103. Review by Board

(a) Review upon the Record. The Board in its discretion may determine to open the record for the introduction of evidence or to provide the parties with the opportunity for a further hearing. If the Board determines to provide for a further hearing, the Board shall provide notice to the parties of the place and time of the hearing at the same time as it provides notice that the Hearing Panel decision is being reviewed by the Board. Unless the Board opens the record for the introduction of evidence or to hear argument, the Board's review shall be upon the record as certified to the Board by the Secretary of the Corporation.

(b) Decision of the Board. The Board may, in its discretion, affirm, reverse, modify, or remand for further consideration any Hearing Panel decision. The Board's decision shall be made in writing and shall state the reasons for its conclusions.

(c) Copies of Decision. Copies of the Board's decisions shall be furnished to the appellant, the SEC, and the appropriate regulatory agency for the appellant (if other than the SEC).

Rule 1104. Record of Appeal

(a) Record of Hearing. A verbatim record shall be kept of any hearing on appeal pursuant to Rule 1103. A transcript thereof, together with copies of any exhibits, shall be furnished on request to the appellant, at the appellant's expense.

(b) Permanent Files of Corporation. Each notice of appeal, together with the record of the appeal and any decision with respect thereof made pursuant to Rule 1103, shall be filed in the permanent records of the Corporation.

CHAPTER 12. ORGANIZATION AND ADMINISTRATION

Rule 1201. Committees

The Board shall establish from time to time such committees as necessary to conduct the business of the Corporation. No member of any such committee may be subject to a statutory disqualification as that term is defined in Section 3(a)(39) of the Securities Exchange Act. Every member of any such committee shall be subject to Rule 1202 regarding the use or disclosure of material, non-public information. Each such committee shall have a charter that sets out its composition and responsibilities.

Rule 1202. Use or Disclosure of Material, Non-Public Information

No member of any committee shall use or disclose, for any purpose other than the performance of such person's official duties as a member of a committee, any material, non-public information obtained by such person as a result of such person's participation on any such committee; provided, however, that if any such person who effects any transactions after having received any such material, non-public information so obtained can show that such transaction was effected in the ordinary course of such person's business, such person shall not be deemed to have used such information in violation of this Rule 1202, unless it can be shown that such person would not have effected such transaction in the absence of such information.

Rule 1203. Risk Management Committee

The Board shall establish a committee ("Risk Management Committee") to assist the Board in fulfilling its supervisory responsibilities over the risk management of the Corporation's clearance, settlement, and related functions in accordance with Section 17A(b)(3) of the Securities Exchange Act, Rules 17ad-22 and 17ad-25 thereunder and such other laws, regulations, rules and guidance as may apply. The Risk Management Committee shall operate and be organized in accordance with these Rules and the Risk Management Committee Charter and shall have such responsibilities as set forth in these Rules and the Risk Management Committee Charter.

Rule 1204. Regulatory Oversight Committee

The Board shall establish a committee to assist in regulatory oversight ("Regulatory Oversight Committee"). The Regulatory Oversight Committee shall operate and be organized in accordance with these Rules and the Regulatory Oversight Committee Charter and shall have such responsibilities as set forth in these Rules and the Regulatory Oversight Committee Charter.

CHAPTER 13. MISCELLANEOUS

Rule 1301. Forms

In connection with any transaction or matters handled through, with or by the Corporation pursuant to the Rules, such forms of lists, notices, and other documents shall be used as the Corporation may from time to time prescribe, and additions to, changes in, and elimination of any such forms may be made by the Corporation at any time in its discretion. In addition, any information required to be delivered to the Corporation by use of any such forms may be delivered by the use of any media as set forth in ~~the Procedures~~these Rules or by the Corporation from time to time.

Rule 1302. Signatures

The Corporation may, at its option, in lieu of relying on an original signature, rely on a signature as if it were (and the signature shall be considered and have the same effect as) a valid and binding original signature in the following circumstances: if such signature is transmitted, recorded, or stored by an electronic, optical, or similar means (including, but not limited to, telecopy, imaging, photocopy, electronic mail, electronic data interchange, telegram, or telex).

Rule 1303. Captions

Captions to any Rules ~~or Procedures~~ are for information and guidance only, are not part of any Rule ~~or Procedure~~, and are to be given no consideration in applying or construing any Rules ~~or Procedures~~.

Rule 1304. Governing Law

The Corporation's Rules ~~and Procedures~~, and the rights and obligations thereunder, will be governed by, and construed in accordance with, the laws of the State of New York applicable to contracts executed and performed therein.

Rule 1305. Notices

(a) Notice from the Corporation.

(i) Unless otherwise set forth in the Rules ~~or Procedures~~, any notice pursuant to these Rules from the Corporation will be sufficiently served on a Member or User if the notice is in writing, and is mailed to the Member's or User's office address, is sent via electronic mail to the Member's or User's electronic mail address, or is transmitted by facsimile to a facsimile machine located either in the Member's or

User's office or elsewhere as designated by such Member or User. Any notice to a Member or User, if mailed, will be deemed to have been given when deposited in the U.S. Postal Service, with postage thereon prepaid, directed to the Member or User at its office address, and if sent via electronic mail, will be deemed given when routed to the electronic mail address of the Member or User. Any notice to a Member or User, if transmitted by facsimile as provided above, will be deemed to have been given when such transmission is verified on the facsimile machine of the Corporation as having been transmitted.

(ii) Notwithstanding anything set forth in these Rules to the contrary, the Corporation may distribute notices to all Members and Users via an Advisory. The Corporation will deem a notice delivered via an Advisory once such notice is successfully posted to the Corporation's website.

(b) Notice to the Corporation. Unless otherwise set forth in the Rules ~~or Procedures~~, any notice from a Member or User to the Corporation will be sufficiently served on the Corporation if the notice is in writing and is delivered or mailed to the Corporation at its principal place of business or is sent by electronic email at CMESCNotices@cmegroup.com, in each case addressed Attention: Secretary. Any such notice to the Corporation will be deemed to have been given when received.

(c) The meaning of the term "notice" set forth in this Rule 1305 includes, but is not limited to, any notice, written statement, written answer, written response, written decision, or request for a written answer or written response provided pursuant to Chapters 10 and 11 of these Rules.

Rule 1306. Books and Records

The Corporation's books and records shall be maintained, destroyed, and otherwise disposed of in accordance with the books and records policies of CME Group, consistent with Rules 17a-1 and 17a-6 under the Securities Exchange Act.

Rule 1307. Dispute Resolution

(a) In the event that there is a dispute between a Member and the Corporation, between a User and the Corporation, or between any number of Members or Users, on the one hand, and the Corporation, on the other hand, arising out of or relating to any Clearing Service, and the parties to the dispute exhaust all efforts to resolve the dispute amongst themselves, the dispute shall be resolved by final and binding arbitration in Chicago, Illinois with arbitration administered by the American Arbitration Association ("AAA"), unless the parties to the dispute mutually agree otherwise. Such arbitration shall be final and binding between and

among all Members, Users, and the Corporation that are parties to the arbitration. The fees and expenses of such arbitration (including reasonable attorneys' fees) or any action to enforce an arbitration award shall be paid by the party(ies) that does not prevail in such arbitration.

(b) In the event AAA declines to accept a dispute of the type covered by ~~paragraph~~ Rule 1307(a) ~~of this Rule 1307~~ to resolve and the parties are unable to mutually agree to an alternative arbitration forum to hear the matter, the dispute shall be adjudicated in federal or state court in Chicago, Illinois. Members and Users consent to the jurisdiction of such court and to service of process by any means authorized by Illinois or U.S. Federal Law and shall not seek to transfer the venue of such litigation.

CHAPTER 14. REGULATION SCI

Rule 1401. Mandatory Participation in Operational Testing

(a) In accordance with Rule 1004 of Regulation Systems Compliance and Integrity ("Regulation SCI" or "SCI") and with respect to the Corporation's disaster recovery strategy, the Corporation will designate Members and Users for operational testing based on volume thresholds.

(b) As part of the Corporation's system resilience testing, such designated Members and Users will be required to exercise with the Corporation's backup environment. Testing will occur at least annually and will be coordinated on an industry or sector wide basis.

(c) The Corporation's operational resilience program will provide appropriate notice to such designated Members and Users regarding the exercise schedule. All such designated Members and Users are required to fulfill, within the timeframes established by the Corporation, testing and related reporting requirements.

CHAPTER 15. INTEREST RATE SECURITIES CLEARING SERVICE

Rule 1501. Interest Rate Securities Clearing Service

(a) Scope. This Chapter 15 covers clearing of Repo Transactions and Cash Treasury Transactions through the Interest Rate Securities Clearing Service.

(b) General. A User that is approved, pursuant to these Rules ~~and Procedures~~, including Chapter 3 Rules, to use the Interest Rate Securities Clearing Service must be authorized by a Member to submit Eligible Securities Transactions for clearing through the Corporation's Interest Rate Securities Clearing Service.

(c) Eligible Securities Transactions. ~~Only those Repo Transactions and Cash Treasury Transactions involving Securities identified in Procedure 15-1 shall be Eligible Securities Transactions that may be cleared through~~Within the Interest Rate Securities Clearing Service, the Corporation shall clear Repo Transactions that are Repo Transactions in Eligible Securities that are U.S. Treasury securities and Cash Treasury Transactions that are purchases and/or sale transactions of Eligible Securities that are U.S. Treasury securities. The Corporation may accept for clearing such Repo Transactions and Cash Treasury Transactions, provided that each transaction counterparty is either a Member or a User. From time to time, the Corporation shall make available to Members and Users via an Advisory: (i) a description of the terms of Repo Transactions that the Corporation will accept for clearing, including the maturities of such Repo Transactions and the maturities of U.S. Treasury securities that are Eligible Securities for purposes of such Repo Transactions; and (ii) a list of U.S. Treasury securities that are Eligible Securities for the purposes of Cash Treasury Transactions. The Corporation's Rules ~~and Procedures, as applicable,~~ constitute the terms and conditions of the Repo Transactions and the Cash Treasury Transactions accepted for clearing by the Corporation.

(d) Single Transaction, Acceleration, Set-off, and Netting. Payments, deliveries, and other transfers made in respect of any of a Member's or User's Repo Transactions and Cash Treasury Transactions with the Corporation, including any payments, deliveries, or other transfers made by a Member to satisfy an obligation that its User has failed to satisfy, are made in consideration of payments, deliveries, and other transfers in respect of any other of such Member's or User's Repo Transactions and Cash Treasury Transactions with the Corporation, including any payments, deliveries, or other transfers made by a Member to satisfy an outstanding obligation of a User that is authorized by the Member. The Corporation may apply obligations to make any such payments, deliveries, and other transfers against each other and net them. For the avoidance of doubt, Participants are not permitted to net the obligations set out in the preceding sentence, other than as set out in Rule 714 or otherwise permitted by the Rules ~~or Procedures~~.

(e) General Collateral Bucket. The original parties to a Clear to Hold Transaction may only deliver collateral to settle the Repo Transaction that meets the requirements of a General Collateral Bucket as defined in Rule 101. The original parties to a Cash Treasury Transaction or a Clear to Deliver Transaction may only deliver collateral to settle the applicable Cash Treasury Transaction or Repo Transaction that meets the requirements of eligible collateral set out by the Corporation.

(f) From time to time, the Corporation shall make available to Members and Users via an Advisory a description of the General Collateral Bucket and Eligible Securities that the Corporation will accept as collateral underlying a Cash Treasury Transaction or a Repo Transaction submitted to the Corporation for clearing.

(g) ~~(e)~~ With respect to each Repo Transaction and each Cash Treasury Transaction, as applicable, each Member and User:

(i) recognizes that each Repo Transaction with the Corporation is a "repurchase agreement" as that term is defined in Section 101 of Title 11 of the United States Code, as amended;

(ii) recognizes that each Eligible Securities Transaction is a "securities contract" as that term is defined in Section 741 of Title 11 of the United States Code, as amended;

(iii) understands that the Corporation's right to liquidate Eligible Securities delivered to it in connection with an Eligible Securities Transaction or to exercise any other remedies set forth in the Corporation's Rules ~~or Procedures~~ is a contractual right to liquidate such Eligible Securities Transaction as described in Sections 555 and 559 of Title 11 of the United States Code, as amended; and

(iv) agrees and acknowledges that if it is an "insured depository institution," as such term is defined by the Federal Deposit Insurance Act, then each of its Eligible Securities Transactions with the Corporation is a "qualified financial contract," as that term is defined in the Federal Deposit Insurance Act and any rules, orders, or policy statements thereunder.

(h) ~~(f)~~ Each Repo Transaction with the Corporation is intended to be a purchase and sale of Eligible Securities and not a loan. In the event that any Repo Transactions with the Corporation are deemed to be loans and not sales and purchases of Eligible Securities, the seller of Eligible Securities shall be deemed to have pledged to the buyer as security for the performance by the seller of its obligations under each such Repo Transaction, and shall be deemed to have granted to the buyer a security interest in, all of the securities purchased by buyer with respect to

all such ~~repo transactions~~Repo Transactions hereunder and all income thereon and other proceeds thereof.

~~**Rule 1502. Members and Users**~~

Rule 1502. Submission of Eligible Securities Transactions for Clearing; Functions of the Clearing System

(a) Submission Process.

(i) A Member that is approved, pursuant to these Rules ~~and Procedures,~~, including Chapter 3 Rules, to use the Interest Rate Securities Clearing Service may clear proprietary Repo Transactions and Cash Treasury Transactions through the Corporation and authorize Users with respect to clearing their Repo Transactions and Cash Treasury Transactions through the Corporation, subject to the Corporation's approval. Members and Users shall submit Cash Treasury Transactions and Repo Transactions for clearing to the Securities Clearing System. Access to such system(s) shall be in accordance with specifications established and provided by the Corporation.

(A) Clear to Deliver Transactions and Cash Treasury Transactions shall be submitted to the Securities Clearing System (x) as a matched Repo Transaction or Cash Treasury Transaction from an Eligible Platform, (y) as a single-sided Repo Transaction or single-sided Cash Treasury Transaction submitted from an Eligible Platform to be matched in the Securities Clearing System, or (z) a transaction entered by one Participant via the Corporation's interface and alleged to another Participant to claim or decline. The term "single-sided Repo Transaction" refers to either the leg of a Repo Transaction in which the securities seller agrees to transfer Eligible Securities to the securities buyer against the transfer of funds by the securities buyer, or to the leg of a Repo Transaction in which the securities buyer agrees to the transfer of funds to the securities seller against the transfer of Eligible Securities by the securities seller. The term "single-sided Cash Treasury Transaction" refers to either the leg of a Cash Treasury Transaction in which the seller agrees to transfer Eligible Securities to the buyer against the transfer of funds by the buyer, or to the leg of a Cash Treasury Transaction in which the buyer agrees to the transfer of funds to the seller against the transfer of Eligible Securities by the seller.

a. Clear to Deliver Transactions and Cash Treasury Transactions must be sent through secure connections from an Eligible Platform or from Members or Users and must be formatted in accordance with the Corporation's messaging specifications. The Corporation will

respond with a confirmation message if the submission is valid. Any transaction messages rejected for invalid message formatting may be corrected and resubmitted for clearing. Members or Users may also enter a single-sided Repo Transaction or single-sided Cash Treasury Transaction, or claim or decline a transaction that has been alleged to them by another Member or User using the Corporation's trade submission user interface.

b. The Corporation will match two single-sided Clear to Deliver Transactions representing the securities purchase and securities sale legs of the same Repo Transaction submitted from an Eligible Platform or entered directly into the Securities Clearing System by identifying the Member(s) and/or User(s) that were the parties to the original Repo Transaction based on the information required to be submitted to the Corporation for each Repo Transaction as set out in Rule 1502(a)(ii). Any pending, unmatched single-sided Repo Transactions or unclaimed alleged trades will be rejected by the Corporation at the end of the Business Day. An unmatched single-sided Repo Transaction is either (a) the securities purchase leg of a Repo Transaction for which a contra securities sale leg has not been submitted to the Corporation for matching, or (b) the securities sale leg of a Repo Transaction for which a contra securities purchase leg has not been submitted to the Corporation for matching. An unclaimed alleged trade is a trade that has been submitted in the clearing system and alleged to a counterparty and has not been accepted or rejected by the counterparty.

c. The Corporation will match two single-sided Cash Treasury Transactions representing the buy and sale legs of the same Cash Treasury Transaction submitted from an Eligible Platform or entered directly into the Securities Clearing System by identifying the Member(s) and/or User(s) that were the parties to the original Cash Treasury Transaction based on the information required to be submitted to the Corporation for each Cash Treasury Transaction as set out in Rule 1502(a)(iii). Any pending, unmatched single-sided Cash Treasury Transactions or unclaimed alleged trades will be rejected by the Corporation at the end of the Business Day. An unmatched single-sided Cash Treasury Transaction is either (a) the purchase leg of a Cash Treasury Transaction for which a contra sale leg has not been submitted to the Corporation for matching, or (b) the sale leg of a Cash Treasury Transaction for which a contra purchase leg has not been submitted to the Corporation for matching. An unclaimed alleged trade is a

trade that has been submitted in the clearing system and alleged to a counterparty and has not been accepted or rejected by the counterparty.

d. With respect to a Cash Treasury Transaction submitted on a "When Issued" basis, the Corporation shall close the novated When Issued Cash Treasury Transaction and automatically create a new Cash Treasury Transaction on the instrument following completion of the applicable primary auction.

(B) Clear to Hold Transactions shall be submitted to the tri-party trade entry system of the Corporation's Securities Settlement Bank(s) through acceptable means as set forth by the Corporation's Securities Settlement Bank(s), which will subsequently transmit matched Repo Transactions to the Securities Clearing System.

(ii) Both parties to a Repo Transaction must agree to the following information about the transaction, and one or both of such parties must provide the information to the Corporation when submitting the Repo Transaction to the Corporation for clearing:

(A) the full legal names of the Member(s) and/or User(s) that are the parties to the transaction, or such identifier as the Corporation may assign Members and Users;

(B) identification of the Repo Transaction as a Clear to Deliver Transaction or a Clear to Hold Transaction;

(C) the notional amount of the Repo Transaction;

(D) the CUSIP or General Collateral Bucket of the securities to be provided as collateral for the Repo Transaction, as applicable;

(E) identification of which party is the cash borrower and which is the cash lender;

(F) the start date and end date of the Repo Transaction;

(G) the start cash and end cash of the Repo Transaction; and

(H) the repo rate.

(iii) Both parties to the Cash Treasury Transaction must agree to the following information about the transaction, and one or both of such parties must provide the

information to the Corporation when submitting the Cash Treasury Transaction to the Corporation for clearing:

(A) the full legal names of the Member(s) and/or User(s) that are the parties to the transaction, or such identifier as the Corporation may assign Members and Users;

(B) the notional amount of the Cash Treasury Transaction;

(C) the cash amount of the Cash Treasury Transaction;

(D) the CUSIP of the U.S. Treasury security or securities that are subject to the Cash Treasury Transaction

(E) the settlement date of the Cash Treasury Transaction; and

(F) The identity of which party is the buyer of the U.S. Treasury security or securities and which party is the seller of the U.S. Treasury security or securities.

(b) Functions of the Securities Clearing System. The following functions are performed within the Corporation's Securities Clearing System:

(i) The Corporation will provide confirmation via a report ("Clearing Confirmation") through the Securities Clearing System user interface, as well as through the system's messaging service, to each Member and User that is a party to a Repo Transaction or a Cash Treasury Transaction and any relevant Eligible Platform and/or Securities Settlement Bank identified to the Corporation with respect to the trade submission. The Clearing Confirmation shall state that the Repo Transaction or Cash Treasury Transaction has been submitted for clearing and that novation is pending, provided that all of the information set forth in Rules 1502(a)(ii) or (a)(iii), as applicable, is submitted. The Corporation will distribute the Clearing Confirmation within such period as the Corporation shall determine.

(ii) The Clearing Confirmation issued by the Corporation through the Clearing System to each Member and/or User that is a party to a Cash Treasury Transaction, Clear to Deliver Transaction, or Clear to Hold Transaction shall serve to confirm that the relevant transaction is submitted in the manner and with all necessary information prescribed by the Corporation, complies with any applicable credit controls, and that the Corporation has not ceased to act on behalf of either such party pursuant to Chapter 9 of the Rules.

(iii) The Corporation will provide notice of the rejection of a Repo Transaction or a Cash Treasury Transaction within the Securities Clearing System via a Clearing

Confirmation, if: (x) any of the information set forth in Rules 1502(a)(ii) or (a)(iii), as applicable, is missing or inaccurate; (y) if a Repo Transaction or Cash Treasury Transaction that a User submits does not comply with credit controls that its authorizing Member sets; or (z) if the Corporation has ceased to act on behalf of such User or Member. The Clearing Confirmation will identify the reasons for such rejection. The Corporation will provide notice of such rejection at the time the Repo Transaction or Cash Treasury Transaction has been rejected or, if rejected due to a deadline, by the following times on the date of submission of the Repo Transaction to the Corporation for clearing: 2:55 p.m. Eastern Time for Repo Transactions submitted for T+0 settlement and 8:00 PM Eastern Time for Cash Treasury Transactions and Repo Transactions submitted for T+1 settlement. Rejected trades are subject to the requirements of Rule 202(b) and Rule 602(d).

(A) If a Repo Transaction or Cash Treasury Transaction is rejected because any of the information set forth in Rules 1502(a)(ii) or (a)(iii), as applicable, is missing or inaccurate, the transaction information may be corrected and resubmitted to the Corporation.

(B) If a Repo Transaction or a Cash Treasury Transaction that a User submits is rejected because it does not comply with credit controls set by its authorizing Member, the User may contact the Member to amend the credit control and resubmit the transaction to the Corporation. If the Member is not willing to amend or adjust the relevant credit control, the User may resubmit the transaction to the Corporation through another authorizing Member.

(C) If a Repo Transaction or a Cash Treasury Transaction is rejected because the Corporation has ceased to act on behalf of a User or Member that is a counterparty on such transaction, the transaction may not be resubmitted.

(iv) With respect to a Repo Transaction or a Cash Treasury Transaction to which a User is a counterparty, the Member authorizing the User must confirm its authorization of such transaction to the Corporation through the Securities Clearing System by using credit controls hosted in the Securities Clearing System, a pre-approval indicator sent by an Eligible Platform to the Securities Clearing System indicating that the Member has pre-approved its authorization of the transaction, or explicitly claiming or rejecting a trade via electronic message to the Securities Clearing System.

Rule 1503. ~~**Rule 1503.**~~ **Novation of Transactions**

(a) A Member or User is deemed to represent that any Repo Transaction or Cash Treasury Transaction it submits to the Corporation for clearing is a Repo Transaction or Cash Treasury Transaction, as applicable, within the meaning of Rule 101, ~~Procedure 15-1 and~~

~~Procedure 15-3. When the Corporation accepts a Repo Transaction or a Cash Treasury Transaction for clearing~~Rules 1501 and 1502. Upon completion of the confirmations set forth in Rule 1502(b), the Corporation shall novate the Repo Transaction or the Cash Treasury Transaction, as applicable, and the Corporation shall be substituted as, and assume the position of, the seller to the buyer and the buyer to the seller of the relevant Repo Transaction or Cash Treasury Transaction. As a result, each Member or User shall become the direct legal counterparty to the Corporation for its Repo Transaction or Cash Treasury Transaction, and the Member or User will be deemed to have bought the underlying Eligible Securities from or sold such Eligible Securities to the Corporation, as applicable. Furthermore, the Corporation novates Repo Transactions and Cash Treasury Transactions in accordance with the agreed-upon terms of the counterparties to the original transaction; accordingly, the Corporation shall have all the rights and be subject to all the liabilities of a counterparty with respect to such Member or User under such transactions, except as set forth in the Rules ~~and Procedures~~.

(b) Upon novation by the Corporation, each Member or User shall be responsible to the Corporation for the Repo Transactions and Cash Treasury Transactions in which such Member or User is identified as a buyer or a seller, whether or not such transaction information was correct.

(c) A Repo Transaction or a Cash Treasury Transaction that the Corporation has rejected for clearing shall be treated in accordance with ~~subparagraph~~ Rule 602(d) ~~of Rule 602~~.

(d) Settlement Modification. Prior to the appointed settlement time of a Cash Treasury Transaction or a Start Leg of a Repo Transaction, or at a later time established in the Corporation's sole discretion, both of the original counterparties to the Repo Transaction or the Cash Treasury Transaction submitted to the Corporation for clearing and novated may mutually agree to cancel or modify such transaction. In such case, the settlement obligations of the original counterparties and the Corporation are terminated.

(i) Settlement Modification of Cleared Repo Transactions by Original Counterparties. The Member(s) and/or User(s) that were the two counterparties to an original Repo Transaction submitted to the Corporation for clearing may, at any time prior to the submission deadline for the Business Day on which such Repo Transaction is settling or at such later time as approved by the Corporation, mutually agree to modify the Repo Transaction pursuant to these settlement modification procedures under Rule 1503(d). If a Repo Transaction is modified pursuant to Rule 1503(d), the Corporation's Rules for failures and ceasing to act for a Member or User do not apply to the original Repo Transaction. If, however, the counterparties fail to notify the Corporation about modification of a Repo Transaction submitted for clearing before delivery of securities is due relating to such transaction, the Corporation may impose fail charges pursuant to Rule 1506 for failure to deliver such securities or may take action in accordance with its Rules

for ceasing to act for a Member of User. At the discretion of the Corporation, the Member(s) and/or User(s) that were the two counterparties to an original Repo Transaction submitted to the Corporation for clearing may also mutually agree to terminate a Repo Transaction after settlement of the Start Leg of the Repo Transaction, but before the end-of-cycle on the Business Date prior to the settlement date of the Off Leg of the Repo Transaction, pursuant to Rule 1503(d)(i).

(ii) Settlement Modification of Cash Treasury Transactions by Original Counterparties. The Member(s) and/or User(s) that were the two counterparties to an original Cash Treasury Transaction submitted to the Corporation for clearing may, at any time prior to the submission deadline for the Business Day on which such Cash Treasury Transaction is settling or at such later time as approved by the Corporation, mutually agree to modify the Cash Treasury Transaction pursuant to these settlement modification procedures under Rule 1503(d). If a Cash Treasury Transaction is modified pursuant to Rule 1503(d), the Corporation's Rules for failures and ceasing to act for a Member or User do not apply to the original Cash Treasury Transaction. If, however, the counterparties fail to notify the Corporation about modification of a Cash Treasury Transaction submitted for clearing before delivery of securities is due relating to such transaction, the Corporation may impose fail charges pursuant to Rule 1506 for failure to deliver such securities and/or may take action in accordance with its Rules for ceasing to act for a Member of User.

(iii) Previously Executed Settlement Modification Agreement. To modify a Cash Treasury Transaction or Repo Transaction previously submitted for clearing, the original counterparties thereto must have executed a settlement modification agreement, stating that the original counterparties may modify Cash Treasury Transactions or Repo Transactions submitted for clearing pursuant to Rule 1503(d).

(iv) Notification to the Corporation. If the original counterparties to a Repo Transaction or Cash Treasury Transaction agree to modify the transaction, the original counterparties must notify the Corporation as follows.

(A) A Member or User that is a counterparty to the original Repo Transaction or Cash Treasury Transaction must notify the Corporation, by email or through such a system as the Corporation shall designate, by the applicable deadlines described in Rules 1503(d)(i)-(ii).

(B) Such notification must include the identification number for the original Repo Transaction or Cash Treasury Transaction and the terms of the modifications to which the counterparties to the original Repo Transaction or Cash Treasury Transaction have agreed.

(v) Cancellation of Original Repo Transaction or Cash Treasury Transaction and New Repo Transaction or Cash Treasury Transaction. If the Corporation receives a valid notification to modify or terminate a Repo Transaction or Cash Treasury Transaction pursuant to Rule 1503(d) from both counterparties to the original Repo Transaction or Cash Treasury Transaction, the Corporation will cancel the original Repo Transaction or Cash Treasury Transaction. The Corporation will cancel all settlement instructions with respect to the canceled transaction, including Cash Treasury or Off Leg settlement instructions in the case of the Off Leg of a terminated Repo Transaction, and the Corporation will no longer have any clearing obligations with respect to that transaction. If the counterparties to the original Repo Transaction or Cash Treasury Transaction agree to a new Repo Transaction or Cash Treasury Transaction to replace the original Repo Transaction or Cash Treasury Transaction, the counterparties must submit a new Repo Transaction or Cash Treasury Transaction for clearing to the Corporation. The Corporation may impose fees on Members and Users for modification and termination of Repo Transactions or Cash Treasury Transactions in such amounts as the Corporation may determine from time to time.

(vi) Notification to Original Repo and Cash Treasury Counterparties. The Corporation will notify the counterparties to the original Repo Transaction or Cash Treasury Transaction that the Corporation has canceled the transaction and, if applicable, cleared a new Repo Transaction or Cash Treasury Transaction.

(e) The Corporation shall provide each Member and/or User that was party to the original Repo Transaction or Cash Treasury Transaction, as well as the Eligible Platform and Securities Settlement Bank system, as applicable, with a Clearing Confirmation. The Clearing Confirmation shall:

(i) State that the original Repo Transaction or Cash Treasury Transaction has been novated as of the time of the Clearing Confirmation, with a trade status of "Cleared", which confirms the creation of the Repo Transaction or Cash Treasury Transaction, as applicable, between the Corporation and the Member or User;

(ii) Serve as confirmation that the Corporation has become either (x) the cash borrower or cash lender in the Repo Transaction, or (y) the securities seller or securities buyer in the Cash Treasury Transaction. The status of the Member or User as cash lender or cash borrower under the novated transaction shall not change relative to the original Cash Treasury or Repo Transaction, but such status shall be indicated in the Clearing Confirmation;

(iii) Set out the terms of the Repo Transaction or Cash Treasury Transaction, which shall match the terms of the original Repo Transaction or Cash Treasury Transaction, as applicable, submitted to the Corporation for clearing; and

(iv) Serves as indication that the novated Repo Transaction or Cash Treasury Transaction is eligible for settlement pursuant to Rule 1504.

Rule 1504. Settlement Obligations for Transactions

(a) Members. A Member shall be a principal pursuant to the Rules with respect to: (A) the Start Leg and Off Leg settlement obligations only for the Member's proprietary Repo Transactions in its Member Account; and (B) settlement obligations only for the Member's proprietary Cash Treasury Transactions in its Member Account.

(b) Users. A User shall be principal pursuant to the Rules with respect to: (A) the Start Leg and Off Leg settlement obligations only for the User's Repo Transactions in its User Account; and (B) settlement obligations for the User's Cash Treasury Transactions in its User Account.

(c) Settlement Accounts. Prior to submitting any Repo Transaction or Cash Treasury Transaction to the Corporation for clearing, the Member or User must establish a settlement account at the Corporation's Securities Settlement Bank for the relevant transactions. For Members and Users that are cash lenders, such Members and Users must establish a collateral account in its name and for its exclusive benefit at the Corporation's Securities Settlement Bank. Each Member and User shall make available to the Corporation upon request copies of its settlement account and collateral account agreements, as applicable. For a Clear to Hold Transaction, a cash lender shall not remove collateral from its collateral account at the Securities Settlement Bank except as otherwise permitted under these Rules.

(d) Settlement; Netting. The Corporation will settle Repo Transactions for same-day settlement (T+0) in real-time on a gross basis. Except as otherwise provided in this Rule 1504(d), the Corporation will settle Cash Treasury Transactions and Repo Transactions that settle other than same-day and have the same CUSIP on a net basis. With respect to Clear to Hold Transactions, the Corporation will net settlement obligations only against additional Clear to Hold ~~transactions~~Transactions in the same General Collateral Bucket with the same scheduled settlement date. For avoidance of doubt, the Corporation will not net such Clear to Hold Transactions against Cash Treasury Transactions or Clear to Deliver Transactions. The procedures for settlement and netting are detailed in Rules 1504(f) and (g), respectively.

(e) Daily Settlement Reports. In addition to the requirements set out in Rule 616, the Daily Settlement Report will indicate the amounts of any cash and securities delivery obligations for that day and the amounts of any cash and securities receipt entitlements for that day with respect

to ~~the~~any Repo ~~Transaction(s)~~Transactions and/or Cash Treasury Transactions of such Member or User. The Daily Settlement Reports shall also indicate whether the obligations and entitlements listed therein relate to Clear to Hold Transactions or Clear to Deliver Transactions, and with respect to Clear to Deliver Transactions, whether settlement shall occur on a real-time gross basis or on a net basis. With respect to securities delivery obligations and securities receipt entitlements, the Daily Settlement ~~Reports~~Report shall also indicate the applicable CUSIP(s) and/or General Collateral Bucket(s).

(f) Settlement Procedure.

(i) The Corporation shall issue standing settlement instructions to the Corporation's Securities Settlement Bank(s) to settle Clear to Deliver Transactions submitted for T+0 settlement in real-time on a gross basis. The Corporation will instruct the Corporation's Securities Settlement Bank(s) to effect the movement of collateral against cash upon receipt of securities from the Member's or User's Securities Settlement Bank, designated pursuant to Rule 604(b). The Corporation will instruct the Corporation's Securities Settlement Bank(s) to notify the Corporation upon the settlement of any Clear to Deliver Transaction. The Corporation's Securities Settlement Bank(s) shall issue a settlement confirmation of each Clear to Deliver Transaction in real-time to the Member and/or User that is the original counterparty on the transaction.

(ii) The Corporation shall calculate settlement obligations on Clear to Deliver Transactions and Cash Treasury Transactions submitted for T+1 settlement on a net basis pursuant to Rule 1504(g). The Corporation shall issue settlement instructions to the Corporation's Securities Settlement Bank(s) for netted Clear to Deliver Transactions and Cash Treasury Transactions scheduled for delivery on the next eligible settlement date following the deadline to submit Clear to Deliver Transactions for T+1 settlement, as permitted by the schedule of the Corporation's Securities Settlement Bank(s). The Corporation will instruct the Corporation's Securities Settlement Bank(s) to effect the movement of collateral against cash upon receipt of securities from the Member's or User's Securities Settlement Bank, designated pursuant to Rule 604(b). The Corporation will require its Securities Settlement Bank(s) to notify the Corporation upon the settlement of any netted Clear to Deliver Transaction.

(iii) The Corporation shall calculate settlement obligations on Clear to Hold Transactions on a net basis pursuant to Rule 1504(g). The Corporation shall issue settlement instructions to its Securities Settlement Bank(s) for Clear to Hold Transactions submitted for T+0 settlement following the deadline to submit Clear to Hold Transactions for T+0 settlement. The Corporation shall issue settlement instructions to its Securities Settlement Bank(s) for Clear to Hold Transactions submitted for T+1 settlement on a net

basis on the next eligible settlement date following the schedule for T+0 settlement on that date. The Corporation will instruct its Securities Settlement Bank(s) to move securities against cash once Members and Users have funded their cash and security obligations in their settlement accounts at the Corporation's Securities Settlement Bank(s).

(iv) The Corporation shall provide Members and Users with instructions for transferring cash and securities to, and receiving cash and securities from, the Corporation's settlement account at its Securities Settlement Bank(s).

(v) Deadlines.

(A) The Securities Clearing System will open each week for submission of Cash Treasury Transactions and Repo Transactions Sunday at 5:00 p.m. Eastern Time and will remain open for submission until 8 p.m. Eastern Time Friday.

(B) The submission window for T+0 Clear to Deliver Repo Transactions opens at 5:00 p.m. Eastern Time Sunday until 2:55 p.m. Eastern Time on Monday. The Securities Clearing System will reopen for T+0 submission at 8:00 p.m. Eastern Time and after the date has rolled in the Securities Clearing System. The Securities Clearing System will reopen for T+0 trade submission each Business Day after the system date has rolled.

(C) The submission window for T+0 Clear to Hold Repo Transactions opens at 5:00 p.m. Eastern Time Sunday to 1:00 p.m. Eastern Time on a Monday. The Securities Clearing System will reopen for T+0 submission at 8:00 p.m. Eastern Time and after the date has rolled in the Securities Clearing System. The Securities Clearing System will reopen for T+0 trade submission each Business Day after the system date has rolled.

(D) The submission window for T+1 Cash Treasury Transactions, Clear to Deliver Transactions, and Clear to Hold Repo Transactions opens at 5:00 p.m. Eastern Time Sunday to 8:00 p.m. Eastern Time on a Monday. The Securities Clearing System will reopen for T+1 submission at 8:00 p.m. Eastern Time and after the date has rolled in the system. The Securities Clearing System will reopen for T+1 trade submission each Business Day after the system date has rolled.

(E) At approximately 2:00 p.m. Eastern Time, the Corporation shall calculate net Clear to Hold Transaction settlement requirements for each Member and User that has submitted a Clear to Hold Transaction for T+0 settlement.

(F) The Corporation shall issue a Daily Settlement Report to each Member and User via the Securities Clearing System with respect to netted Clear to Hold Transaction settlement obligations and netted Clear to Deliver Transaction and Cash Treasury settlement obligations on each Business Day by such time(s) as the Corporation shall determine in its sole discretion. A Member's or User's settlement obligations shall include both its Repo Transaction Start Leg and Off Leg and Cash Treasury settlement obligations.

(G) Members and Users must ensure that Clear to Deliver Transactions submitted for T+0 settlement, and settlement obligations for T+1 Cash Treasury Transactions and Clear to Deliver Transactions from the previous Business Day, settle by 3:00 p.m. Eastern Time. Consequently, Members and Users must comply with the settlement requirements of Rule 1504(f)(vii)(A)(b) by such time. Following settlement, the Corporation will issue a settlement confirmation to the Member or User counterparty to such transaction via the Securities Clearing System and/or through such other means as the Corporation shall determine in its sole discretion. If a Member or User fails to deliver cash or securities to the Corporation's account at the Corporation's Securities Settlement Bank(s) by the deadline, the Corporation shall issue a failure notice to such Member or User identifying the details of such failure via the Securities Clearing System.

(H) Members and Users must ensure that Clear to Hold Transactions submitted for T+0 settlement settle by 6:30 p.m. Eastern Time. Consequently, Members and Users must comply with the settlement requirements of Rule 1504(f)(vii)(A)(a) by such time. Following settlement, the Corporation will issue a settlement confirmation to the Member or User counterparty to such transaction via the Securities Clearing System and/or through such other means as the Corporation shall determine in its sole discretion. If a Member or User fails to deliver cash or securities to the Corporation's account at the Corporation's Settlement Bank by the deadline, the Corporation shall issue a failure notice to such Member or User identifying the details of such failure via the Securities Clearing System.

(I) The Corporation shall work to resolve fails to deliver for Cash Treasury and Clear to Deliver Transactions from 3:00 p.m. Eastern Time to approximately 3:30 p.m. Eastern Time. The Corporation shall work to resolve fails to deliver for Clear to Hold Transactions for T+0 settlement from 6:30 Eastern Time to approximately 7:00 p.m. Eastern Time. The Corporation shall contact, via such means as the Corporation deems appropriate, Members and Users that have failed to deliver as such to determine the reasons for such failure and to assist in resolving

such failure. The Corporation will coordinate with Securities Settlement Banks and other stakeholders, as necessary, to resolve the failure to deliver, including by assessing whether operational issues exist that can be resolved to allow the delivery of cash or securities.

(J) If fails to deliver cash are not resolved by the time periods set forth in Rules 1504(f)(v)(G)-(H), the Corporation, in its sole discretion, may act in accordance with its Rules for ceasing to act for a Member of User.

(K) At approximately 8:00 p.m. Eastern Time, the Corporation shall calculate settlement obligations for netted Clear to Deliver Transactions and Cash Treasury Transactions submitted for T+1 settlement. The Corporation shall provide updated Daily Settlement Reports at such time(s) as the Corporation shall determine. The Corporation will notify Members and Users of such time(s) via an Advisory.

(L) The Corporation's deadlines may be modified on certain holidays and non-Business Days. The Corporation will notify Members and Users of the holiday calendar and any modified deadlines via an Advisory or on the Corporation's website

(vi) Confirmations. The Corporation's Securities Settlement Bank(s) shall provide confirmation to the Corporation immediately upon settlement of any Repo Transaction, Cash Treasury Transaction, or netted settlement obligation. The Corporation shall make confirmations available to each Member and User that is counterparty to a Repo Transaction and Clearing Treasury Transaction through the Securities Clearing System and/or through such other means as the Corporation shall determine. The Corporation shall provide such confirmations as soon as reasonably practicable upon settlement of the Repo Transaction or Cash Treasury Transaction and shall include such information as the Corporation shall determine from time to time.

(vii) Transfers of Cash and Securities Upon Settlement.

(A) By the settlement deadline set forth in Rule 1504(f), a Member or User shall comply with the following settlement obligations.

a. For Clear to Hold Transactions, the Member or User will ensure that sufficient securities and/or cash equal to its net settlement obligations are deposited in the Member's or User's account at the Corporation's Securities Settlement Bank(s). By the settlement deadline set forth in Rule 1504(f)(v)(H), the Member or User must instruct the

Corporation's Securities Settlement Bank(s) to deliver securities and/or cash equal to its net settlement obligation from its account at the Corporation's Securities Settlement Bank(s) to the Corporation's account at the Corporation's Securities Settlement Bank.

b. For each Clear to Deliver Transaction, Cash Treasury Transaction, or netted settlement obligation, the Member or User will ensure that sufficient securities and/or cash equal to its settlement obligations are deposited in the Member's or User's account at the Member's or User's Securities Settlement Bank(s). Upon notification of novation and by the settlement deadline set forth in Rule 1504(f)(v)(G), the Member or User must instruct the Member's or User's Securities Settlement Bank(s) to deliver securities or cash Delivery Versus Payment ("DvP") or Receipt Versus Payment ("RvP") to/from its account at its Securities Settlement Bank(s) to/from the Corporation's account at the Corporation's Securities Settlement Bank(s), as applicable.

(B) By the settlement deadlines set forth in Rule 1504(f), the Corporation shall instruct the Corporation's Securities Settlement Bank(s) to transfer cash from its account, in such amount as required to meet its cash delivery obligations as set out in the Daily Settlement Report, to:

a. the Member's or User's account at the Corporation's Securities Settlement Bank(s), for Clear to Hold Transactions, if such Member or User has a cash receipt entitlement; or

b. the Member's or User's account at such Member's or User's Securities Settlement Bank(s) for Cash Treasury Transactions or Clear to Deliver Transactions, if such Member or User has a cash receipt entitlement.

(C) By the settlement deadline set forth in Rule 1504(f), the Corporation shall transfer or cause to be transferred securities, in such amount as required to meet its settlement obligations as set out in the Daily Settlement Report, to:

a. the Member's or User's account at the Corporation's Securities Settlement Bank(s), for Clear to Hold Transactions, if such Member or User has a securities receipt entitlement. Such account shall be maintained in the name of, and for the exclusive benefit of, the Member or User that is a party to the Clear to Hold Transaction with the Corporation; or

b. the Member's or User's account at such Member's or User's Securities Settlement Bank(s), for Clear to Deliver Transactions, if such Member or User has a securities receipt entitlement.

(viii) Additional Clear to Deliver Settlement Procedures. With respect to Clear to Deliver Transactions settling on a real-time gross basis:

(A) The Corporation will send RvP and DvP instructions to the Corporation's Securities Settlement Bank(s) along with a binding instruction to facilitate automated settlement. The Member or User shall settle its obligations with the Corporation only after it has received confirmation that the Repo Transaction has been novated by the Corporation.

(B) If a Member or User cannot satisfy its entire collateral settlement obligation and intends to provide only a portion of the collateral obligation, it must immediately contact the Corporation. The Corporation will only permit partial deliveries that comply with the Corporation's Rules and the rules, policies, procedures, and practices of the relevant Securities Settlement Bank(s) used to settle such obligations, such as by satisfying one or more exact expected delivery amounts of a total larger delivery obligation, as dictated by the Daily Settlement Report. If the other party accepts this partial offer, and at the discretion of the Corporation, the Corporation's staff may update the Corporation's settlement instructions to process the applicable transaction(s) partially, leaving the outstanding portion(s) open and to be settled when final delivery is made.

(C) The Corporation will require the Corporation's Securities Settlement Bank(s) to reject collateral sent to the Corporation's account if the collateral does not match the binding instructions sent to the Corporation's Securities Settlement Bank(s). Upon such rejection, the Corporation may follow up with the Member or User to resolve the issue.

(ix) Charges for Fails to Deliver. The Corporation shall determine any fail charge imposed by the Corporation for failure to deliver securities pursuant to Rule 1506, communicate such charges to Members and Users and collect such charges on a monthly basis.

(g) Netting Procedure.

(i) Netting of Clear to Hold Transaction Settlement Obligations, Generally. The Corporation shall separately net cash borrower and cash lender settlement obligations each Business Day for each Member and each User for all Clear to Hold Transactions. The

Corporation shall net Start Leg and Off Leg collateral settlement obligations of those transactions only where the Member or User is acting in the same capacity (either as a cash borrower or cash lender). The Corporation shall not net cash settlement obligations against collateral settlement obligations.

(ii) Cash Netting – Clear to Hold Transactions.

(A) The Corporation shall separately net a Member's or User's cash delivery obligations and receipt entitlements for those Repo Transactions in which the Member or User is either acting as a cash borrower or a cash lender.

(B) For those Repo Transactions in which a Member or User is acting as a cash borrower, the Corporation determines the Member's or User's cash delivery obligations and receipt entitlements by:

a. determining the amount of cash, if any, a Member or User is entitled to receive as a cash borrower with respect to the Start Leg of all Clear to Hold Transactions which begin on a given Business Day;

b. determining the amount of cash, if any, a Member or User is obligated to return as a cash borrower with respect to the Off Leg of all Clear to Hold Transactions terminating on that same Business Day; and

c. netting the amounts in Rules 1504(g)(ii)(B)(a)-(b) to determine a net cash settlement delivery obligation or receipt entitlement with respect to those Repo Transactions in which the Member or User is acting as a cash borrower

(C) For those Repo Transactions in which a Member or User is acting as a cash lender, the Corporation determines the Member's or User's cash delivery obligations and receipt entitlements by:

a. determining the amount of cash, if any, a Member or User is obligated to deliver as a cash lender with respect to the Start Leg of all Clear to Hold Transactions which begin on a given Business Day;

b. determining the amount of cash, if any, a Member or User is entitled to receive as a cash lender with respect to the Off Leg of all Clear to Hold Transactions terminating on that same Business Day; and

c. netting the amounts in Rules 1504(g)(ii)(C)(a)-(b) to determine a net cash settlement delivery obligation or receipt entitlement

with respect to those Repo Transactions in which the Member or User is acting as a cash lender.

(iii) Securities Netting – Clear to Hold Transactions.

(A) The Corporation shall separately net a Member's or User's collateral delivery obligations and receipt entitlements for those Repo Transactions in which the Member or User is either acting as a cash borrower or a cash lender.

(B) For those Repo Transactions in which a Member or User is acting as a cash borrower, the Corporation determines the Member's or User's collateral delivery obligations and receipt entitlements by:

a. determining the amount of securities, if any, a Member or User is obligated to deliver as a cash borrower with respect to the Start Leg of all Clear to Hold Transactions which begin on a given Business Day;

b. determining the amount of securities, if any, a Member or User is entitled to receive as a cash borrower with respect to the Off Leg of all Clear to Hold Transactions terminating on that same Business Day; and

c. netting the amounts in Rules 1504(g)(iii)(B)(a)-(b) on a General-Collateral-Bucket basis to determine a net collateral settlement delivery obligation or receipt entitlement with respect to those Repo Transactions in which the Member or User is acting as a cash borrower. Netting on a "General-Collateral-Bucket basis" shall mean that securities delivery obligations involving securities in a General Collateral Bucket are netted against securities receipt entitlements involving securities in the same General Collateral Bucket.

(C) For those Repo Transactions in which a Member or User is acting as a cash lender, the Corporation determines the Member's or User's collateral delivery obligations and receipt entitlements by:

a. determining the amount of securities, if any, a Member or User is entitled to receive as a cash lender with respect to the Start Leg of all Clear to Hold Transactions which begin on a given Business Day;

b. determining the amount of securities, if any, a Member or User is obligated to return as a cash lender with respect to the Off Leg of all Clear to Hold Transactions terminating on that same Business Day; and

c. netting the amounts in Rules 1504(g)(iii)(C)(a)-(b) on a General-Collateral-Bucket basis to determine a net collateral settlement delivery obligation or receipt entitlement with respect to those Repo Transactions in which the Member or User is acting as a cash lender.

(iv) Netting of Cash Treasury Transactions and Clear to Deliver Transaction Settlement Obligations.

(A) With respect to Clear to Deliver Transactions and Cash Treasury Transactions submitted for settlement on or after T+1, the Corporation shall net a Member's or User's cash and securities settlement obligations each Business Day for obligations to be settled on the next eligible Settlement Date. The Corporation shall net Clear to Deliver Start Leg, Clear to Deliver Off Leg, and Cash Treasury collateral settlement obligations for the same CUSIP. The Corporation determines the Member's or User's netted collateral delivery obligations and receipt entitlements (the settlement obligation) per CUSIP for each clearing account by:

a. determining the amount of securities, if any, a Member or User is obligated to deliver as a seller with respect to the Start Leg of all Clear to Deliver Transactions, the End Leg of all Clear to Deliver Transactions, and Cash Treasury Transactions, including failed settlement obligations from a prior settlement day to be attempted for re-delivery, which are scheduled for settlement on a given Business Day;

b. determining the amount of securities, if any, a Member or User is obligated to receive as a buyer with respect to the Start Leg of all Clear to Deliver Transactions, the End Leg of all Clear to Deliver Transactions, and Cash Treasury Transactions, including failed-against settlement obligations from a prior settlement day to be attempted for re-receipt, which are scheduled for settlement on a given Business Day; and

c. netting the amounts in Rules 1504(g)(iv)(A)(a)-(b) on a CUSIP basis to determine a net collateral settlement delivery obligation or receipt entitlement with respect to those transactions in which the Member or User has an obligation.

d. The netted settlement obligation per CUSIP will be instructed to be delivered or received against a cash settlement, based on a single market price per CUSIP, the settlement Price, as determined by the Corporation.

e. The cash settlement value for each settlement obligation will equal the collateral par amount of securities multiplied by the Corporation's settlement price to determine the settlement value cash amount to be received on each collateral delivery obligation or paid on each collateral receipt entitlement.

(v) For purposes of Rule 1504(g), a Repo Transaction is considered to "begin on a given Business Day" if the settlement of the Start Leg of such Repo Transaction is to occur on such Business Day.

Rule 1505. ~~**Rule 1505.**~~ **Outstanding Exposure Settlement for Eligible Securities Transactions; Reports**

~~(a) Repo Transactions~~

(a) General. The Corporation shall collect any net deficit (debit), and pay any net gain (credit), in relation to Outstanding Exposure Settlement, as determined pursuant to this Rule 1505 for the novated Eligible Securities Transactions of each Member or User (as applicable) in such amount as indicated in the Daily Margin Report. For such purposes, a negative amount will be considered a debit from the relevant Account due to the Corporation, and a positive amount will be considered a credit due from the Corporation to the relevant Account. For Clear to Deliver and Cash Treasury Transactions, Outstanding Exposure Settlement obligations must be met in cash, unless otherwise permitted by the Corporation.

(b) Clear to Deliver Transactions. Outstanding Exposure Settlement for Clear to Deliver Transactions includes the following components:

(i) Settlement Variation. Each Member for its Member Account and its Supported User Account(s), and each Independent User for its Independent User Account, shall pay to or collect from the Corporation any loss or profit for such Account as a settlement variation payment, as the case may be, represented by the difference between the settlement ~~price versus the settlement price for the~~prices for the current and preceding clearing ~~cycle~~cycles, multiplied by the par amount of the securities. For the first clearing cycle after novation of a ~~Repo~~Clear to Deliver Transaction, the settlement variation payment amount shall be represented by the difference between the current settlement price versus the price at which the Start Leg was purchased or sold~~.~~, multiplied by the par amount of the securities. For Clear to Deliver Transactions, the settlement price will include accrued coupon interest for the Business Day on which the settlement variation is calculated. Where a Clear to Deliver Transaction is netted against another obligation, settlement variation will be calculated based on the delivery settlement obligation, and any subsequent settlement variation calculations will use the settlement price for the delivery

settlement obligation as the starting price. For Clear to Deliver Transactions for which additional purchased securities in the form of Haircut Collateral are held by the purchaser of the transaction, as indicated on the original transaction, the Haircut Collateral amount will be subtracted from the settlement value (i.e., settlement price multiplied by the par amount of the securities) for each calculation of the settlement variation

(ii) Repo Rate Accrual. The Corporation shall collect ~~and pay out~~ the daily repo rate accrual from a Member or User that is a funds borrower, and pay the daily repo rate accrual to a Member or User that is a funds lender, or in the event of negative repo rates, ~~pay~~collect the daily repo rate accrual ~~to,~~from a Member or User that is a funds ~~borrower. The mechanism for collecting~~lender, and pay the daily repo rate accrual ~~is set forth in paragraph (b)(ii) of Procedure 15-9. Repo rate accrual shall be paid in an amount agreed upon by the parties to the original repo transaction submitted to the Corporation for clearing.~~to a Member or User that is a funds borrower. The parties shall agree on the repo accrual rate before the transaction is submitted for clearing and novated by the Corporation. The daily repo rate accrual will be calculated by the Corporation as the original Start Cash submitted on the Repo Transaction, multiplied by the repo rate submitted on such Repo Transaction, for each calendar day beginning with the prior Business Day on which the daily repo rate accrual had been processed and following the day count convention standard for the relevant Eligible Securities.

(iii) Collateral Coupon Payment. ~~When~~For Clear to Deliver Transactions, where a coupon payment is made on collateral deposited as the securities leg of a Repo Transaction ~~cleared by the Corporation~~, the Corporation shall ~~collect and deliver such coupon payment as set forth in paragraph (b)(v) of Procedure 15-9. In the event of a failure to settle on~~debit the amount of any coupon payment from the relevant Account that is the funds lender for the respective Repo Transactions, and credit the amount of any coupon payment to the relevant Account that is the funds borrower for the respective Repo Transactions. For delivery settlement obligations of Clear to Deliver Transactions, if a failure has occurred on a collateral delivery scheduled on or before the date of record for a ~~Coupon Payment Date for a Clear to Deliver Transaction cleared by the Corporation~~coupon payment date, where a coupon payment is made on collateral yet to be delivered by the Member or User who has failed to deliver the collateral, the Corporation shall ~~collect and deliver such coupon payment as set forth in paragraph (b)(v) of Procedure 15-9.~~debit the amount of any coupon payment from the relevant Account that has failed to deliver the collateral, and credit the amount of any coupon payment to the Account that was failed against in the delivery of the collateral, as determined by the Corporation.

(iv) Price Alignment Amount. The ~~Corporation will collect and deliver the~~ Price Alignment Amount ~~as set forth in paragraph (b)(iv) of Procedure 15-9.~~ component is determined as follows:

~~(v) Additional Information Included in Daily Margin Report. The Daily Margin Report will indicate additional information beyond the items specified in Rule 506, including but not limited to the Outstanding Exposure Settlement amounts to be paid or received, as applicable, including for any settlement variation, repo rate accrual, collateral coupon payments, Price Alignment Amount, and maturity adjustments for collateral that expires before securities settlement.~~

(A) Price Alignment Amount will be calculated as (x) a debit on transactions that were the receivers (a credit) in respect of the sum of settlement variation and repo rate accrual since the novation of the transaction to the Corporation and held from one Business Day to the next, and (y) a credit on transactions that were the payers (a debit) of the sum of settlement variation and repo rate accrual since novation.

(B) The Price Alignment Amount will be calculated by the Corporation as the sum of the settlement variation and repo rate accrual since novation of the transaction to the Corporation, multiplied by the applicable overnight investment rate as determined by the Corporation, and calculated for each calendar day from the prior Business Day on which the Price Alignment Amount had been processed.

(C) The calculations for the Price Alignment Amount will be reset when a transaction is netted against another obligation for settlement, and any subsequent Price Alignment Amount calculations will only include settlement variation received or paid related to the delivery settlement obligation.

(v) Maturity Adjustment. For Clear to Deliver Transactions, if collateral is held to maturity before it can be delivered, which results in the redemption of the securities upon maturity, a maturity adjustment will be made. The maturity adjustment will be calculated as the difference between the scheduled settlement value of the securities to be delivered to the Account that is the scheduled purchaser of the securities, and the amount of the redemption of the securities paid to the Account that is scheduled to deliver the securities.

(vi) Transfer Cash. Outstanding Exposure Settlement for Clear to Deliver Transactions may include a transfer cash component. The transfer cash can originate on transfers or other atypical transactions, such as those originating from managing a Default. The transfer cash may also be inclusive of other miscellaneous cash adjustment amounts.

(vii) Haircut Collateral Collection or Return. Outstanding Exposure Settlement for Clear to Deliver Transactions may include collection or return of Haircut Collateral where a haircut amount is specified on the original transaction submitted for clearing.

(A) Collection of Haircut Collateral will be facilitated through Outstanding Exposure Settlement for T+1 settlement, where the Haircut Collateral cannot be collected through gross settlement as would be the case for T+0 settlement. Collection of Haircut Collateral will be reflected as a debit of the Haircut Collateral cash submitted on the transaction for the funds borrower and a credit for the funds lender.

(B) Return of Haircut Collateral will be facilitated through Outstanding Exposure Settlement on the date of the Off Leg. Return of Haircut Collateral will be reflected as a debit of the Haircut Collateral cash submitted on the transaction for the funds lender and a credit for the funds borrower.

(c) ~~(b)~~ Cash Treasury Transactions. Outstanding Exposure Settlement for Cash Treasury Transactions includes the following components:

(i) Settlement Variation. Each Member for its Member Account and its Supported User Account(s), and each Independent User for its Independent User Account, shall pay to or collect from the Corporation any loss or profit for such Account as a settlement variation payment, as the case may be, represented by the difference between the settlement price versus the settlement price for the preceding clearing cycle, multiplied by the par amount of the securities. For the first clearing cycle after novation of a Cash Treasury Transaction, the settlement variation payment amount shall be represented by the difference between the settlement price versus the price at which the Cash Treasury Transaction was purchased or sold. For Cash Treasury Transactions, the settlement price will be inclusive of accrued coupon interest to the settlement date of the Cash Treasury Transaction. Where a Cash Treasury Transaction is netted against another obligation, settlement variation will be calculated based on the delivery settlement obligation, and any subsequent settlement variation calculations will use the settlement price for the delivery settlement obligation as the starting price.

(ii) Collateral Coupon Payment. ~~When~~The Outstanding Exposure Settlement for Cash Treasury Transactions includes a collateral coupon component. For delivery settlement obligations of Cash Treasury Transactions, if a failure has occurred on a collateral delivery scheduled on or before the date of record for a coupon payment date, where a coupon payment is made ~~to a Cash Treasury seller~~on collateral yet to be delivered by the Member or User who has failed to ~~settle on a Coupon Payment Date for a Cash~~

~~Treasury Transaction cleared by the Corporation~~deliver the collateral, the Corporation shall ~~collect and deliver such coupon payment as set forth in paragraph (b)(v) of Procedure 15-9.~~ debit the amount of any coupon payment from the relevant Account that has failed to deliver the collateral, and credit the amount of any coupon payment to the Account that was failed against in the delivery of the collateral, as determined by the Corporation.

(iii) Price Alignment Amount. The ~~Corporation will collect and deliver~~ Price Alignment Amount ~~as set forth in paragraph (b)(iv) of Procedure 15-9~~component for a Cash Treasury Transaction is calculated in the same manner as explained in Rule 1505(b)(iv) with respect to Clear to Deliver Transactions.

(iv) Maturity Adjustment. For Cash Treasury Transactions, if collateral is held to maturity before it can be delivered, which results in the redemption of the securities upon maturity, a maturity adjustment will be made. The maturity adjustment will be calculated as the difference between the scheduled settlement value of the securities to be delivered to the Account that is the scheduled purchaser of the securities, and the amount of the redemption of the securities paid to the Account that is scheduled to deliver the securities.

(v) Transfer Cash. Outstanding Exposure Settlement for Cash Treasury Transactions may include a transfer cash component. The transfer cash can originate on transfers or other atypical transactions, such as those originating from managing a Default. The transfer cash may also be inclusive of other miscellaneous cash adjustment amounts.

(d) Outstanding Exposure Settlement for Clear to Hold Transactions. For Clear to Hold Transactions, Outstanding Exposure Settlement shall include the components determined pursuant to the procedures of the relevant Securities Settlement Bank(s) that operates the service for Clear to Hold Transactions, including settlement variation and those components listed in subparagraphs (i)-(iii) below, and shall be calculated in the manner established by such Securities Settlement Bank(s). For Clear to Hold Transactions, Eligible Securities or cash may be delivered as Outstanding Exposure Settlement, and Eligible Securities that are of a different maturity from the Eligible Securities initially delivered to settle such transactions may be delivered as long as they comply with the specifications of the General Collateral Bucket as indicated on the original transaction.

(i) For Clear to Hold Transactions for which Haircut Collateral is delivered, the Haircut Collateral amount will be used in the calculation of Outstanding Exposure Settlement to determine any deficit.

(ii) The Outstanding Exposure Settlement for Clear to Hold Transactions includes the repo rate accrual. The daily repo rate accrual is collected from a Member or User that is a funds borrower, and the daily repo rate accrual is paid to a Member or User

that is a funds lender, or in the event of negative repo rates, the daily repo rate accrual is collected from a Member or User that is a funds lender, and the daily repo rate accrual is paid to a Member or User that is a funds borrower.

(iii) The Outstanding Exposure Settlement for Clear to Hold Transactions includes coupon payments. Where a coupon payment is made on collateral deposited as the securities leg of a Clear to Hold Transaction, any such coupon payment from the relevant Account of the funds lender is transferred to the relevant Account of the funds borrower.

(e) ~~(iv)~~ Additional Information Included in Daily Margin Report. The Daily Margin Report will indicate additional information beyond the items specified in Rule 508, including but not limited to the amounts to be paid or received, as applicable, for any settlement variation, repo rate accrual, collateral coupon payments, Price Alignment Amount, and maturity adjustments for collateral that expires before ~~final~~securities settlement.

(f) Intraday Clearing Cycle. During the intraday clearing cycle on each Business Day as described in Rule 508(c):

(i) For Clear to Deliver Transactions and Cash Treasury Transactions, Outstanding Exposure Settlement will be exchanged and will only be inclusive of the settlement variation calculation as detailed in this Rule 1505.

(ii) For Clear to Hold Transactions, Outstanding Exposure Settlement, including transfers of securities, will follow the Outstanding Exposure Settlement procedures for the Securities Settlement Bank(s) as indicated in Rule 1505(c).

Rule 1506. ~~**Rule 1506.**~~ **Eligible Security Transaction Fails**

(a) General. A Member's or User's failure to deliver Qualified Securities to the Corporation to settle a novated Eligible Securities Transaction, by itself, shall not be grounds for the Corporation to declare a Default pursuant to Rule 902; however, the Corporation, in its discretion, may determine that a Member's or User's repeated failure to deliver securities to settle novated Eligible Securities Transactions is grounds for the Corporation to declare a Default with respect to such Member or User pursuant to Rule 902.

(b) Start Leg Repo Transaction Fails. If a Member or a User fails to deliver Eligible Securities in satisfaction of its Repo Transaction settlement obligations with respect to the Start Leg of a ~~repo transaction~~Repo Transaction, the Corporation will:

(i) ~~For~~for Clear to Deliver Transactions, allocate the fail to one or more Member(s) or User(s) that are entitled to receive the Eligible Securities from the Member(s) or User(s) that failed, and for Clear to Hold Transactions, allocate the fail to one or more Member(s) or User(s) that are entitled to receive securities in the same General Collateral Bucket that the failing Member or failing User was obligated to deliver;

(ii) assess against the failing Member or User the repo rate based on the full delivery obligation; and

(iii) assess against the failing Member or User a fail charge as determined by the Corporation for each day that such Member or User fails to deliver Eligible Securities.

(c) Off Leg Repo Transaction Fails. If a Member or a User fails to deliver Eligible Securities in satisfaction of its Repo Transaction settlement obligations with respect to the Off Leg of a Repo Transaction, the Corporation will:

(i) ~~will~~ allocate the fail to one or more Member(s) or User(s) that are entitled to receive the same Eligible Securities that the failing Member or failing User was obligated to deliver, and

(ii) assess against the failing Member or failing User a fail charge as determined by the Corporation for each day that such Member or User fails to deliver Eligible Securities.

(d) Cash Treasury Transaction Fails. If a Member or a User fails to deliver Eligible Securities in satisfaction of its Cash Treasury Transaction settlement obligations, the Corporation will:

(i) allocate the fail to one or more Member(s) or User(s) that are entitled to receive the Eligible Securities from the Member(s) or User(s) that failed;

(ii) assess against the failing Member or User the repo rate based on the full delivery obligation; and

(iii) assess against the failing Member or User a fail charge as determined by the Corporation for each day that such Member or User fails to deliver Eligible Securities.

(e) Corporation Obligations. If a Member or User completely fails to satisfy its obligation to deliver Eligible Securities to settle a Repo Transaction or a Cash Treasury Transaction, the Corporation shall not be obligated to deliver such Eligible Securities to the Member or User allocated the fail until the Business Day on which the Corporation has received such Eligible Securities from the failing Member or User. Where the Corporation does not deliver

Eligible Securities to the Member or User allocated the fail to settle the Start Leg of a Repo Transaction due to a settlement failure, the Member or User shall have no obligation to deliver Eligible Securities to the Corporation on the portion of the Off Leg of such Repo Transaction that was subject to settlement failure.

(f) Fail Charges. If a non-Defaulting Member or a non-Defaulting User fails to deliver Eligible Securities in satisfaction of its settlement obligations for Repo Transactions or Cash Treasury Transactions, the Corporation shall assess against the failing Member or User a fail charge as determined by the Corporation for each day that such Member or User fails to deliver Eligible Securities. The Corporation will pay collected fail charges pro rata to the Members or Users to which the Corporation allocates the fail. If a Defaulting Member or Defaulting User does not pay a fail charge owed to the Corporation, the Member(s) or User(s) entitled to receive the fail charge proceeds will have such proceeds reduced pro rata by the Defaulting Member or Defaulting User's unpaid amount.

(g) Partial Deliveries. In the event that a Member or User fails in part to satisfy its obligation to deliver Eligible Securities to settle a Repo Transaction or a Cash Treasury Transaction, the Corporation, in its sole discretion and when it has received written agreement from the Participant(s) to whom the Corporation will onward deliver the securities, may allow for a partial delivery of an obligation; provided that such partial deliveries comply with Corporation Rules and the rules, policies, procedures and practices of the relevant Securities Settlement Bank(s) and Bank(s) used to settle such obligations such as by satisfying one or more exact expected delivery amounts of a total larger delivery obligation, as dictated by the Daily Settlement Report. If a Member or User delivers Eligible Securities in an amount that partially satisfies its obligation to deliver Eligible Securities to settle a Repo Transaction or a Cash Treasury Transaction, (x) the Corporation shall deliver such Eligible Securities to the Member or User allocated the fail, (y) the failing Member or failing User will receive cash equal to the value of Eligible Securities delivered, and (z) the failing Member or failing User will be assessed a fail charge based on the size of the unsatisfied delivery obligation. If a Member or User partially fails to satisfy its obligation to deliver Eligible Securities to settle the Start Leg or Off Leg of a Repo Transaction, the Corporation's obligation to deliver Eligible Securities to the Member or User allocated the fail shall be reduced by the amount of the failing Member's or failing User's unsatisfied delivery obligation, until the Business Day on which the Corporation has received such Eligible Securities from the failing Member or User. If the Corporation delivers Eligible Securities to the Member or User allocated the fail to settle the Start Leg of a Repo Transaction in an amount that partially satisfies the Member's or User's securities receipt entitlement with respect to such Repo Transaction, the Member's or User's obligation to deliver Eligible Securities to the Corporation on the Off Leg of such Repo Transaction shall be reduced by the amount of the Member's or User's unsatisfied securities receipt entitlement.

(h) Corporation Buy-in. ~~The Corporation shall be permitted at any time, and as set forth in Procedure 15-10, to buy in a Member or User that has failed to satisfy its obligations to deliver Eligible Securities to the Corporation.~~

(i) The Corporation shall be permitted at any time to buy in a Member or User that has failed to satisfy its obligations to deliver Eligible Securities to the Corporation. In such a scenario, the Corporation will issue a notice to the failing Member or User ("Notice of Buy-In"). The Notice of Buy-In shall state that the Corporation is purchasing collateral to satisfy its settlement obligations. After purchasing the collateral, the Corporation will pay to the failing Member or User cash equal to the amount by which the market value of the collateral purchased, plus any reasonable transaction fees incurred in making such purchase, were less than the amount of cash transferred to the Corporation. If the market value of the collateral purchased in effecting the buy-in, plus any reasonable transaction fees incurred in making such purchase, is greater than the amount of cash loaned to the Corporation, the failing Member or User shall settle the buy-in by paying such difference to the Corporation in cash.

(ii) A Member or User to whom a fail has been allocated may submit a buy-in request to the Corporation not earlier than one (1) day after such allocation has been made upon notice to the Corporation ~~as set forth in Procedure 15-10.~~ of the Member's or User's intention to buy in the failed securities delivery ("Notice of Intention to Buy In"). The Notice of Intention to Buy In shall state that the Member or User is purchasing collateral and must represent that it shall effect the buy-in at prevailing market prices. The Corporation shall transmit its acceptance or rejection of the Notice of Intention to Buy In to the submitting Member or User. The Corporation shall have the sole discretion to accept or reject the Notice of Intention to Buy In.

(iii) A Member or User that effects a buy-in must notify the Corporation of the price at which the securities were purchased promptly thereafter. ~~On the first Business Day after~~If the Corporation ~~receives such notice~~accepts the Notice of Intention to Buy In, the Corporation shall ~~pay such Member or User~~settle such buy-in no later than the next Business Day after such acceptance. The Corporation shall settle the buy-in of a Member or User by delivering to the Member's or User's settlement account at the Member's or User's Settlement Bank cash equal to the amount by which the market value of the collateral purchased, plus any reasonable ~~loss or cost~~transaction fees incurred in ~~connection with such buy-in, and such Member or User shall pay the Corporation any profit or gain made in connection therewith. In the~~ making such purchase, exceed the amount of cash borrowed from the Corporation. If the market value of the collateral purchased in effecting the buy-in, plus any reasonable transaction fees incurred in making such purchase, is less than the amount of cash borrowed from the Corporation, the Member or User that was the

cash borrower shall settle the buy-in by delivering such difference in cash to the Corporation's settlement account at the Corporation's Securities Settlement Bank(s).

(iv) As an alternative~~, such~~ to the settlement procedure in Rule 1506(h)(iii), the Member or User may submit a request to the Corporation to effect a cash settlement by giving the Corporation credit for the cash retained by the Member or User against the value of the securities that the failing Member or failing User failed to deliver. Such value shall be determined based on the price of the securities on the date of such notice, where the price has been obtained from a generally recognized source utilized by the Corporation. A Member or User that effects a cash settlement must notify the Corporation of the value of the securities promptly thereafter. On the first Business Day after the Corporation receives such notice, the Corporation shall pay such Member or User any reasonable loss or cost incurred in connection with such cash settlement, and such Member or User shall pay the Corporation any profit or gain made in connection therewith.

Rule 1507. Default Management

(a) The Corporation shall manage a Member Default or User Default in accordance with the Rules ~~and Procedures~~.

(b) The Corporation will notify all Members and, as appropriate, Users upon the occurrence of a Member Default or a User Default. In case of a Defaulting User, if time permits before the Corporation takes the actions described in ~~paragraphs~~ Rule 1507(e) ~~of this Rule 1507~~, the Corporation will notify the authorizing Member(s) of the Defaulting User that the Member(s) may terminate the Defaulting User's obligations to the Corporation by satisfying them in full. The Member must notify its intent to do so within a period of time prescribed by the Corporation.

(c) With respect to positions of Defaulting Members or any remaining positions of Defaulting Users, if time permits before the Corporation takes any of the actions described in ~~paragraph~~ Rule 1507(e) ~~of this Rule 1507~~, the Corporation may notify potentially impacted non-Defaulting Members and non-Defaulting Users with open positions in Repo Transactions or Cash Treasury Transactions that they may submit a close-out request to the Corporation. Any such notice shall be made within the times and in the form required by the Corporation. On the first Business Day after the Corporation receives such notice, the Corporation shall pay such Member or User any reasonable loss or cost incurred in connection with such close-out, and such Member or User shall pay the Corporation any profit or gain made in connection therewith.

(d) After the Corporation makes any of the payments required to be made in ~~paragraph~~ Rule 1507(c) ~~of this Rule 1507~~ with respect to one or more Repo Transactions, the Corporation shall have no further obligations with respect thereto.

(e) With respect to any positions that have not been terminated or closed-out pursuant to the preceding paragraphs of this Rule 1507, the Corporation, in its sole discretion to meet the Corporation's settlement obligations, may:

(i) purchase or sell Eligible Securities pursuant to Rule 407;

(ii) conduct a Competitive Auction(s) pursuant to Rule 1508; and/or

(iii) require non-Defaulting Members and Users that are acting as buyers to sell out the securities under their outstanding Repo Transactions and Cash Treasury Transactions ~~("Mandatory Close-Out"), pursuant to paragraph (b) of this Rule 1507,~~, in accordance with the processes (as applicable) in Rule 1506(c), or require non-Defaulting Members and Users that are acting as sellers to buy the securities under their outstanding Repo transactions and Cash Treasury Transactions ~~("Mandatory Buy-In"), pursuant to paragraph (e) of~~, in accordance with the processes in Rule ~~1509~~1506(h)(iii). Notwithstanding anything to the contrary in the Rules ~~or Procedures~~, a Member or User may not be subject to ~~Mandatory Close-Out or Mandatory Buy-In~~the foregoing mandatory close-out or mandatory buy-in on more than two (2) consecutive Business Days.

(f) To meet its settlement obligations, the Corporation may engage in Paired Transactions, as set forth in Rule 407 and ~~paragraph~~ Rule 1508(g) ~~of Rule 1508~~. Should the Corporation be unable to borrow the necessary securities or cash to complete the Paired Transaction, the Corporation may exercise its acceleration rights ~~as set forth in Procedure 15-11~~ with respect to non-Defaulting Members and non-Defaulting Users such that their delivery obligations under outstanding Repo Transactions become due on dates earlier than the original maturity dates of such ~~repo transactions~~Repo Transactions. The Corporation will not exercise its acceleration rights with respect to Repo Transactions with remaining maturities of two (2) Business Days or fewer. ~~The Corporation will notify any Member or User subject to acceleration of the details of the accelerated positions and will compensate such Member or User as set forth in Procedure 15-11.~~

(g) The Corporation will notify each non-Defaulting Member or non-Defaulting User that it is impacted by the exercise of the Corporation's acceleration rights and specify the terms of the accelerated transaction, including the accelerated Off Leg settlement date. The accelerated non-Defaulting Member or non-Defaulting User may submit a replacement Repo Transaction for clearing. In the event the accelerated non-Defaulting Member or non-Defaulting User submits a replacement Repo Transaction that is accepted for clearing, the Corporation will compensate such Member or User in an amount equal to the reasonable costs of entering into a replacement Repo Transaction, including any decrease in interest earned under the replacement Repo Transaction as compared to the original Repo Transaction. In the event the accelerated non-Defaulting Member

or non-Defaulting User does not submit a replacement Repo Transaction for clearing, the Corporation will compensate such Member or User in an amount equal to the cost of such acceleration, as determined by the Corporation in its sole discretion.

Rule 1508. Competitive Auction

(a) If the Corporation deems it appropriate, in its sole discretion, in order to obtain financing necessary and/or to satisfy its settlement obligations set forth in these Rules, the Corporation shall be entitled to conduct Competitive Auction(s) pursuant to this Rule 1508 and ~~paragraph~~ Rule 405(~~c~~d) ~~of Procedure 4-4~~.

(b) The Corporation will structure any Competitive Auction(s) with the aim of ensuring that the risk associated with the relevant transactions is hedged, or transferred by terminating such transactions in a commercially reasonable manner and establishing equivalent positions cleared and booked to a non-Defaulting Member or non-Defaulting User.

(c) The Corporation will determine, in its sole discretion, whether to conduct multiple auctions with respect to a Defaulting Member's or Defaulting User's outstanding transactions or any hedging transactions. Each portion of such outstanding transactions or hedging transactions will be known as an "Auction Portfolio."

(d) Each non-Defaulting Member and non-Defaulting User (each such bidding entity, a "Bidder") may participate in the Competitive Auction(s) by submitting bids with respect to each Auction Portfolio. Bidders will submit the bids in a format deemed appropriate by the Corporation (the "Bid").

(e) If all or any part of an Auction Portfolio is not allocated pursuant to the Competitive Auction process set out above, then the Corporation may, in its sole discretion, determine to hold additional Competitive Auctions with respect to the unallocated portions of such Auction Portfolio. Where the Corporation determines to run a further Competitive Auction(s), the process as set forth in this Rule 1508 and ~~paragraph~~ Rule 405(~~c~~d) ~~of Procedure 4-4~~ will be repeated.

(f) The Corporation, in its sole discretion, shall determine how and at what price the Auction Portfolio is allocated to Bidders.

(g) Paired Transactions.

With respect to Repo Transactions:

(i) Paired Sale. The Corporation, in its sole discretion, may pair a Competitive Auction of a security or securities with a ~~borrow of~~reverse Repo Transaction involving the same security or securities, identified by CUSIP, that are subject to the Competitive

Auction to permit the Corporation, against cash payment, to deliver such securities by the applicable settlement date of the sale.

(ii) Paired Purchase. The Corporation, in its sole discretion, may pair a Competitive Auction of a security or securities with a ~~borrow of~~Repo Transaction for cash to permit the Corporation, against delivery of securities, to purchase such securities by the applicable settlement date of the sale.

(iii) The pairs of transactions set forth in ~~subparagraphs~~ Rules 1508(g)(i)~~ and (g)~~ (ii) ~~of this Rule 1508~~ shall each be referred to as a "Paired Transaction."

Rule 1509. Offsetting Repo Transactions

(a) If the Corporation deems it appropriate, the Corporation, in its sole discretion, may enter into an offsetting ~~repo transaction~~Repo Transaction with a non-Defaulting Member or non-Defaulting User that has the effect of extending outstanding settlement obligations for Repo Transactions or Cash Treasury Transactions by one (1) Business Day, unless applicable law prohibits the non-Defaulting Member or non-Defaulting User from being required to enter into such an offsetting ~~repo transaction~~Repo Transaction. The terms of such offsetting Repo Transactions will be determined based on current market values. The Corporation may not enter into sequential offsetting ~~repo transactions~~Repo Transactions that have the effect of extending outstanding settlement obligations for Repo Transactions or Cash Treasury Transactions by more than two (2) Business Days. Those Members or Users eligible to be counterparties in offsetting ~~repo transactions~~Repo Transactions will include those parties on the same side of the market, with ~~repo transactions~~Repo Transactions having the same tenor, and subject to the same CUSIP. The Corporation will notify Members and Users selected for offsetting ~~repo transactions~~Repo Transactions of their selection to participate in offsetting ~~repo transactions~~Repo Transactions for Repo Transactions or Cash Treasury Transactions. The Corporation shall pay such Member or User any reasonable loss or cost incurred in connection with such offsetting ~~repo transaction~~Repo Transaction, and such Member or User shall pay the Corporation any profit or gain made in connection therewith.

(b) A Member or User selected for an offsetting ~~repo transaction~~Repo Transaction may for Repo Transactions or Cash Treasury Transactions, rather than entering into the offsetting ~~repo transaction~~Repo Transaction, choose to close-out the cleared position pursuant to Rule 1507.

~~PROCEDURES~~

~~OF~~

~~CME SECURITIES CLEARING INC.~~

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~~CHAPTER 1. DEFINITIONS~~

~~Procedure 1-1. Definitions in Corporation's Rules~~

~~Any term used in these Procedures shall have the same meaning as defined in the Corporation's Rules, except as otherwise indicated.~~

CHAPTER 2. ELIGIBLE SECURITIES TRANSACTIONS

Procedure 2-1. List of Eligible Securities Transactions

(a) The Corporation shall maintain and make available to a Member or User upon request a master file listing each Eligible Securities Transaction, and may from time to time add to, or remove from, such list of Eligible Securities Transactions. The Corporation shall add an Eligible Securities Transaction only upon a determination by the Corporation that it has the existing operational capability to clear and settle such Eligible Securities Transaction and to continue to successfully to provide its services to Members and Users. The Corporation may, in its discretion, approve proposed Eligible Securities Transactions for clearing and settlement. Eligible Securities Transactions that significantly impact the risk profile of the Corporation shall be reviewed and approved by the Risk Management Committee and referred to the Board for its review and approval upon recommendation of the Risk Management Committee. The Corporation's approval is required in order to add or remove any Eligible Securities Transaction.

(b) The Corporation shall notify Members and Users via an Advisory that it intends to discontinue an Eligible Securities Transaction and state the reasons for such discontinuance.

Procedure 2-2. Monitoring for Compliance with Requirements to Submit Eligible Secondary Market Transactions

(a) The Corporation shall conduct periodic routine reviews of Members to monitor each Member's compliance with its obligation under Rule 202 to submit its Eligible Secondary Market Transactions to the Corporation or to another clearing agency registered with the SEC that is a covered clearing agency. The examinations will be conducted by designated staff in accordance with the review cycle established by such staff from time to time, provided, however, that staff shall schedule a routine examination of a given Member at least once every three years.

(b) The Corporation will monitor Eligible Secondary Market Transactions submitted by a Member to the Corporation. If a transaction is rejected the Corporation will attempt to work with the Member to resubmit the transaction. If the Corporation identifies a pattern in which the Member does not resubmit the nonconforming transaction to the Corporation in the form and by the deadline prescribed in the Procedures for the relevant Clearing Service for the transaction, the Corporation may request the Member to provide information and supporting documentation to demonstrate how the Member has resolved the situation to comply with its obligation under Rule 202 to submit its Eligible Secondary Market Transactions to a covered clearing agency for clearing.

(c) If Corporation staff detects a pattern of potential violations of the Member's obligation under Rule 202, staff shall refer the matter for disciplinary action against the Member. If staff preliminarily determines that a Member may have violated its obligation under Rule 202 as to a single Eligible Secondary Market Transaction or with respect to multiple transactions at a lesser

~~frequency than described in the foregoing sentence, staff in its discretion may issue a reminder letter or warning letter to the Member or refer the matter for disciplinary action against the Member.~~

~~(d) A Member must cooperate in any review or inquiry conducted by the Corporation staff described in paragraphs (a) or (b). The Corporation may take disciplinary action against a Member for its failure to cooperate in any such review or inquiry.~~

~~(e) When applying for status as a Member, the applicant must inform the Corporation if it is a direct participant of any other clearing agency registered with the SEC that is a covered clearing agency (as the term direct participant is defined in Rule 17ad-22(a) under the Securities Exchange Act) and the name of any each such other clearing agency. Thereafter, a Member must promptly notify the Corporation of any changes to such information.~~

~~I.~~

CHAPTER 3. QUALIFICATION FOR MEMBER OR USER ACCESS

Procedure 3-1. Application Process

Pursuant to Rules 301 and 303, applicants must apply to become Members or Users as follows:

(a) Process. Currently, the Corporation offers the Interest Rate Securities Clearing Service. A person must be approved as a Member or User for the Interest Rate Securities Clearing Service.

(i) An applicant for Member status must submit electronically or via mail to the Corporation its completed Member Application and any additional materials or information required under the Rules, including the Chapter 3 Rules and the Rules for the Chapter governing the relevant Clearing Service(s), as well as any other information requested by Corporation staff during the application process. The Corporation's staff will review Member applications and recommend approval or disapproval to the Corporation's Risk Management Committee, which shall review and approve or disapprove the application. If the Risk Management Committee denies a Member application, the applicant has the right to request a hearing as provided in paragraph (f) of Rule 303.

(ii) An applicant for User status must submit electronically or via mail to the Corporation its completed User Application and any additional materials or information required under the Rules, including Chapter 3 Rules and the Rules for the Chapter governing the relevant Clearing Service(s), as well as any other information requested by Corporation staff during the application process. The Corporation's staff will review User applications and approve or disapprove them. If staff denies a User application, the applicant has the right to request a hearing as provided in paragraph (f) of Rule 303.

(iii) With respect to a Member seeking to nominate and authorize persons as Users, the Corporation may request the Member to provide information and materials demonstrating that such Member (A) has the necessary right, authority, and power to act in such capacity and that its performance of its obligations under the Rules and Procedures in relation to its authorized Users (including Supported Users) is and will be consistent with the laws applicable to it, and/or (B) has any requisite regulatory approval or license that may be required to act in such capacity.

(b) Time for Approval/Disapproval. The Corporation is not subject to any specific timeframe for approving or disapproving an application.

(c) Conditions for Approval. An applicant for Member or User status agrees that the Corporation:

(i) may make inquiries of any nature about the applicant and any person connected or associated with the applicant;

(ii) may ask the applicant to supply additional information and take whatever steps are necessary to verify information;

(iii) may provide or disclose information to a governmental agency, regulatory organization, other authority, or to the Corporation's insurers in connection with any form of insurance, or to any person in accordance with any other statutory requirement, and in accordance with the terms of the Member Agreement or User Agreement; and

(iv) may disclose to any other party the applicant's name, address, and details of any exchange or clearing memberships held or applied for.

(d) Satisfaction of Conditions for Approval. Applicants approved by the Corporation for Member or User status ("Approved Applicants") must fulfill all conditions associated with their approval within the timeframe established by the Corporation. If an Approved Applicant does not fulfill all such conditions within the established timeframe, the Corporation may, at its sole discretion, consider the grant of approval to have lapsed and may notify the prospective Member or User that it will be required to provide further information, following which the application will be submitted for consideration of re-approval.

(e) Limitation of Approval. Member or User status with the Corporation does not confer on the Member or User any "participant" or "member" or comparable status with any Affiliate of the Corporation.

Procedure 3-2. Member and User Status

(a) Terms and Conditions. The terms and conditions binding on each Member and User are set out in the Rules as well as the Member Agreement and the User Agreement, respectively. During the application process, an applicant for Member status or User status must sign (but not date) a Member Agreement or User Agreement, respectively, and return it to the Corporation, along with the other application documentation.

(b) Member or User Agreement. If and when Member status or User status is granted, Approved Applicant will receive a duly executed (and dated) copy of the Member Agreement or User Agreement, as applicable, together with the notification of acceptance and details of any condition(s) attached to its Member status or User status. With respect to User status, the Corporation will send, under separate cover, a copy of the duly executed and dated User Agreement to the Member that nominated and authorized the User.

(c) Guaranty Fund Contribution. Upon approval of a Member's application, Member status is subject to the Approved Applicant satisfying its Required Guaranty Fund Contribution pursuant to the Rules and Procedures.

(d) Other Requirements. Upon approval of a Member's or User's application, Member or User status is subject to the Approved Applicant completing satisfactory operational testing with the Corporation and any other requirements or conditions imposed by the Corporation.

Procedure 3-3. Applicants Eligible to Become Members and Users

The Risk Management Committee may approve categories of persons in addition to those set forth in Rule 302 that may be approved as Members or Users, consistent with the requirements of the Securities Exchange Act.

Procedure 3-4. Periodic Reviews of Members and Users

(a) To ensure compliance with its participation requirements, including the financial responsibility and operational capability requirements set forth in Rule 306 and Rule 307, the Corporation shall conduct periodic reviews of all Members, including financial monitoring, as follows:

(i) review periodic financial reports filed by a Member with the Corporation pursuant to paragraph (b) of Rule 309;

(ii) review material changes for which the Corporation was notified of by Member pursuant paragraph (a) of Rule 311;

(iii) review financial standards warning notices provided by a Member to the Corporation pursuant to paragraph (c) of Rule 311; and

(iv) review financial reports filed by a Member with the Corporation pursuant to Procedure 3-7.

Procedure 3-5. Due Diligence Reviews and Requests for Information, Books, and Records

The Corporation shall be responsible for conducting due diligence reviews of the financial responsibility and operational capability of Members and may require Members to furnish information to the Corporation and to make books and records available pursuant to paragraph (c) of Rule 309.

Procedure 3-6. Member Due Diligence of Users

This Procedure 3-6 applies to each Member that nominates and agrees to authorize an applicant for User status.

(a) Before the first time a Member nominates an applicant for User status, the Member must establish, maintain, and enforce policies and procedures for conducting due diligence of each such person ("User Due Diligence Policies and Procedures"), including such person's credit and liquidity profile and operational capability. The User Due Diligence Policies and Procedures must reflect that the Member will perform due diligence of each person it nominates and authorizes for User status under each of the factors set forth in paragraphs (c)(iii)(A) through (G) of Rule 306, as applicable, as well as any other factors the Member determines appropriate.

(b) The Member must conduct due diligence of each applicant for User status it nominates before nominating the applicant and is deemed to represent to the Corporation that it has conducted such due diligence as required under paragraph (c) of Rule 306 and the Member's User Due Diligence Policies and Procedures each time it nominates an applicant to become a User.

(c) The Member must conduct routine periodic due diligence of its authorized Users. The Member's User Due Diligence Policies and Procedures must address the frequency with which it will conduct such due diligence reviews, provided, however, that the Member must conduct such reviews of Independent Users no less frequently than once per calendar year and Supported Users no less frequently than once per calendar year. The Member's User Due Diligence Policies and Procedures must also address conducting due diligence of any User more frequently based on Member prescribed circumstances.

Procedure 3-7. Financial Reporting Requirements

(a) Supplemental Information. In addition to the filings required as set forth in paragraphs (b)(i) through (b)(v) of Rule 309, all Members must submit to the Corporation certain supplemental information, as specified by the Corporation from time to time, on a monthly basis, including:

(i) funding and liquidity information and changes to liquidity agreements, as requested by the Corporation;

(ii) subordinated debt maturing within six (6) months; and

(iii) such other information as requested by the Corporation.

(b) Annual Audited Financial Statements. A Member that is required to prepare annual audited financial statements by its appropriate regulatory agency is required to submit annual audited financial statements to the Corporation. Broker-dealer and futures commission merchant Members are required to submit annual audited financial statements within sixty (60) days of their

~~fiscal year-end. Other Members covered by this paragraph (b) are required to submit annual audited financial statements within ninety (90) days of their fiscal year-end.~~

~~(c) Alternative Equivalent Financial Information for Certain Members. A Member that is not required to prepare annual audited financial statements by any regulatory agency is required to submit equivalent financial information to the Corporation within ninety (90) days of its fiscal year-end. The Corporation will work with such Member to agree upon what constitutes equivalent financial information.~~

~~(d) Additional Reports. The Corporation may require any Member at any time to make more frequent capital computations, or to file with the Corporation the above reports on a more frequent basis, or to file such other reports or financial statements in such form or detail as may be prescribed by the Corporation.~~

~~Procedure 3-8. Termination of Member or User Status~~

~~(a) Voluntary Withdrawal of Member Status. A Member may voluntarily withdraw its Member status by providing at least ten (10) Business Days' written notice of its intended withdrawal to the Corporation ("Member Withdrawal Notice"). The Corporation may, in its sole discretion, confirm such withdrawal within a shorter notice period. The Member's withdrawal will not be effective until confirmed by the Corporation. The Corporation's confirmation of the Member Withdrawal Notice shall be evidenced by a notice to all Members and Users via an Advisory announcing the withdrawal of the Member and the Member Withdrawal Date, as that term is defined in paragraph (a) of Rule 903, and, if applicable, announcing the termination of the Member's authorization of Former Users, as that term is defined in paragraph (a) of Rule 903, with respect to clearing transactions through the Corporation.~~

~~(b) Voluntary Withdrawal of User Status. A User may voluntarily withdraw its status as a User by providing at least ten (10) Business Days' written notice of its intended withdrawal to the User's Member and the Corporation ("User Withdrawal Notice"). The Corporation may, in its discretion, confirm such withdrawal within a shorter notice period. The User's withdrawal will not be effective until confirmed by the Corporation. The Corporation's confirmation of the User Withdrawal Notice shall be evidenced by a notice to all Members and Users via an Advisory announcing the withdrawal of the User and the User Withdrawal Date, as that term is defined in paragraph (a) of Rule 903. As of the User Withdrawal Date, the User's Member shall cease to authorize such User with respect to clearing transactions through the Corporation.~~

~~(c) Termination of User Authorization. A Member, or a User authorized by the Member, may terminate the Authorization Agreement between them by providing at least ten (10) Business Days' written notice thereof to the Corporation ("Authorization Termination Notice"). The Corporation may, in its sole discretion, confirm such termination within a shorter notice period pursuant to paragraph (d) of Rule 311. The Corporation must confirm termination of the~~

~~Authorization Agreement in writing before such termination is effective. As of the effective date of such termination, the User's Member shall cease to authorize such User with respect to clearing transactions through the Corporation, but the Member remains responsible for meeting the obligations of the User in the event the User Defaults on any Eligible Securities Transaction submitted by the User prior to such termination. If another Member does not authorize the User within a reasonable time as determined by the Corporation, the Corporation will treat the User's status as withdrawn.~~

CHAPTER 4. GUARANTY FUND AND DEFAULT MANAGEMENT

Procedure 4-1. Guaranty Fund Calculation; Required Contribution

(a) As set forth in Rule 402, the Corporation shall maintain a Guaranty Fund, in an amount determined by the Corporation using its stress testing methodology, at least equal to the largest theoretical loss to the Corporation resulting from the Default of two (2) Member Families, as the term is defined in Rule 101, (the "cover two standard"). To determine the largest theoretical loss to the Corporation resulting from the Default of two (2) Member Families, the Corporation measures the shortfall between the stress loss and collateral on deposit for initial margin (the "largest net debtor amount") at the Member Family level, covering (as applicable) Member Accounts and the User Accounts of a predefined number of Users with the largest credit exposures at each Member.

(b) The Corporation may maintain the Guaranty Fund size at an amount larger than the cover two standard (*e.g.*, by including a buffer), based on the Corporation's assessment of the cover two standard amounts, volatility in the market or other reason, in order to better ensure that the Guaranty Fund meets the cover two standard between official calculations and to prevent significant fluctuations of Required Guaranty Fund Contributions.

(c) The Corporation shall determine each Member's Required Guaranty Fund Contribution using fair and risk-based measures. A Member's Required Guaranty Fund Contribution, as adjusted from time to time, shall be equal to the greater of:

(i) ten million dollars ($10,000,000); or

(ii) the amount a Member is required to contribute to the Guaranty Fund based on the Member's proportionate share of the aggregate Required Guaranty Fund Contribution. Prior to a Member commencing to use a Clearing Service, its proportionate share of the aggregate Required Guaranty Fund Contribution for such Clearing Service is zero.

(d) The Corporation will calculate amounts pursuant to paragraph (c)(ii) of this Procedure for each Member using a formula that is based on the Member's relative: (i) largest net debtor amount for the Member Family; and (ii) gross notional outstanding of the Member Family in Eligible Securities Transactions cleared by the Corporation. These amounts shall be calculated based on the aggregate Required Guaranty Fund Contribution less the Corporation's required contribution available to discharge a Defaulting Member's losses and liabilities as described in paragraph (a)(iii) of Rule 406.

(e) The Corporation will conduct stress testing of its total financial resources once each day using standard predetermined parameters and assumptions.

~~(f) The Corporation will conduct a comprehensive analysis on at least a monthly basis, or more frequently as determined necessary by the Corporation, of a rotating subset of existing stress testing scenarios, models, and underlying parameters and assumptions, and consider whether such results warrant modifications to better ensure that the relevant inputs remain appropriate for determining the Corporation's required financial resources in light of current and evolving market conditions. The results of such periodic and ad hoc analyses will be used to evaluate the adequacy of, and adopt appropriate adjustments to, the Corporation's margin methodology, model parameters, models used to generate clearing or Guaranty Fund requirements, and other relevant aspects of the Corporation's risk management policies and procedures. Changes to the methodology for sizing the Guaranty Fund that constitute substantive changes to the Corporation's risk management program are presented to the Risk Management Committee for review and approval; provided that, if the Risk Management Committee determines any such changes will have a significant impact on the Corporation's risk profile, such changes are subject to approval of the Board upon recommendation of the Risk Management Committee.~~

~~(g) The Corporation may determine, in its sole discretion, to require Members to satisfy their Required Guaranty Fund Contribution with a minimum amount or proportion of cash.~~

~~(h) Pursuant to paragraph (d) of Rule 402, the aggregate Required Guaranty Fund Contributions and each Member's Required Guaranty Fund Contribution shall be recalculated at least monthly. The Corporation may recalculate such requirements more frequently than monthly pursuant to paragraph (d) of Rule 402, including based on the results of the Corporation's daily stress testing results pursuant to paragraph (e) of this Procedure 4-1, as appropriate, for risk management purposes including but not limited to adherence to the cover two standard.~~

~~Procedure 4-2. Deposit of Required Contributions to the Guaranty Fund and Return of Excess Required Contribution Amounts~~

~~(a) The Corporation must receive a new Member's initial Required Guaranty Fund Contribution before such Member is eligible to commence clearing any Eligible Securities Transactions with the Corporation.~~

~~(b) Pursuant to paragraph (d)(i) of Rule 402, the Corporation shall issue a Guaranty Fund Statement following any recalculation of the Guaranty Fund informing each Member of its recalculated Required Guaranty Fund Contribution. This statement shall also detail the Member's maximum Default Assessment.~~

~~(c) A Member must pay to the Corporation any additional Required Guaranty Fund Contribution within two (2) Business Days of the delivery of the Guaranty Fund Statement (the "Required Guaranty Fund Contribution Deadline"), unless the Corporation, in its sole discretion, shortens or extends the Required Guaranty Fund Contribution Deadline.~~

(d) Guaranty Fund contribution amounts posted to the Corporation in excess of a Member's Required Guaranty Fund Contribution shall be repaid upon the request of such Member; provided, however, that the Corporation, in its sole discretion, may withhold such excess if the Member has any unmet or outstanding payment obligation to the Corporation.

(e) The Corporation reserves the right to require Members to deposit additional Required Guaranty Fund Contribution amounts pursuant to paragraph (d)(ii) of Rule 402.

Procedure 4-3. RESERVED

Procedure 4-4. Default Management Process

A Member Default or User Default will be managed in accordance with the Rules and Procedures of the Corporation, including any Rules or Procedures that are specific to a given Clearing Service.

(a) Member Default.

(i) In the event of a Member Default, the Corporation will initiate the close-out process described in the Corporation's Rules and Procedures for the Member Account of a Defaulting Member. Eligible Securities Transactions of the Defaulting Member, inclusive of Cash Treasury Transactions and Repo Transactions, within the Member Account may be aggregated, in the Corporation's sole discretion, for default management purposes.

(ii) The Corporation will apply the financial resources described in paragraph (a) of Rule 406, in the order provided in paragraph (a) of Rule 406, to the Defaulting Member's obligations owed to the Corporation.

(iii) For User Accounts of a Defaulting Member, the Corporation will work with its non-Defaulting Members to attempt to transfer these accounts of non-Defaulting Users, pursuant to Rule 412, as soon as practicable; however, the Corporation may liquidate any open positions of User Accounts of a Defaulting Member, in its sole discretion, pursuant to Rule 412.

(b) User Default.

(i) Pursuant to paragraph (b) of Rule 1507, in the event of a User Default, the Corporation will notify any authorizing Members of such User to provide those Member(s) the opportunity to manage the User Default by satisfying its obligations in full, including by liquidating its portfolio on behalf of the Corporation. The Members so notified should respond to the Corporation within the period prescribed by the Corporation. Any Member that does not respond within the prescribed period would be deemed to have declined to participate in managing the given User Default. If a Member(s) agrees to liquidate the Defaulting User's

portfolio on behalf of the Corporation, such Member(s) will be directly and primarily responsible for meeting the financial and settlement obligations to the Corporation with respect to open positions of the Defaulting User authorized by that Member.

(ii) If the Members (or a subset of those Members) decline, or are deemed to have declined, to participate in managing the User Default, the Corporation will initiate the close-out process described in the Corporation's Rules and Procedures for the User Account of the Defaulting User. Eligible Securities Transactions of the Defaulting User, inclusive of Cash Treasury Transactions and Repo Transactions, across all authorizing Members of a Defaulting User that have elected not to participate in managing the default of such User, may be aggregated, in the Corporation's sole discretion, for default management purposes. For avoidance of doubt, notwithstanding a Member's decision to participate in managing the User Default, the Member's guarantee of the User's financial performance to the Corporation remains in effect until finalization and discharge of all losses associated with the User Default.

(iii) The Corporation will apply the financial resources described in Rule 406(b), in the order provided in paragraph (b) of Rule 406, to the Defaulting User's obligations owed to the Corporation.

(c) Close-out process for the positions of a Defaulting Member or Defaulting User.

(i) If time permits, as soon as reasonably practicable after the Member Default or User Default, the Corporation may, pursuant to paragraph (c) of Rule 1507, identify the contra positions of the non-Defaulting Member and non-Defaulting Users to the positions of the Defaulting Member or Defaulting Users. The Corporation may notify such potentially impacted non-Defaulting Members and/or non-Defaulting Users with open positions that they may submit a close-out request to the Corporation within a period prescribed by the Corporation from the time of notification. Any impacted non-Defaulting Member or non-Defaulting User that does not respond within the prescribed period would be deemed to have declined to close-out such positions. Any Member or User must notify the Corporation of any loss of cost incurred in connection with the close-out and such Member or User must ensure that it takes reasonable efforts to effect the close-out at prevailing market prices.

(ii) With respect to any positions that have not been terminated or closed-out pursuant to paragraphs (b), or (c) of Rule 1507, the Corporation, in its sole discretion, may take the actions pursuant to paragraph (c) of Rule 1507 to manage the Member or User Default, including purchasing or selling Eligible Securities pursuant to Rule 407 or conducting a competitive auction pursuant to Rule 1508.

(A) Pursuant to Rule 407, depending on the prevailing facts and circumstances, including, but not limited to, prevailing market liquidity, the size of the portfolio of the portfolio of the Defaulting Member or Defaulting User, and the time when obligations become due with respect to the portfolio of the Defaulting Member or Defaulting User, the Corporation may enter into Paired Transactions, as the term is defined in Rule 407, to deliver or purchase securities on the applicable settlement date, including for the date of the Default or for Business Days following the date of the Default.

(B) Pursuant to Rule 1508, depending on the prevailing facts and circumstances, including, but not limited to, prevailing market liquidity and the size of the portfolio of the Portfolio of the Defaulting Member or Defaulting User, the time when obligations become due with respect to the portfolio of the Defaulting Member or Defaulting User, and risk capacity of potential Bidders, the Corporation may conduct competitive auction(s), in which it may invite non-Defaulting Members or non-Defaulting Users to participate. Competitive auctions may be conducted in any format determined appropriate by the Corporation, with reference to prevailing facts and circumstances.

(d) Managing a Default with Respect to a Specific Clearing Service and Across Clearing Services.

(i) If a Defaulting Member or Defaulting User has obligations with respect to open Eligible Securities Transactions cleared in more than one Clearing Service, the Corporation may in its discretion treat the Eligible Securities Transactions separately by Clearing Service and/or on a combined portfolio basis for purposes of hedging positions and liquidating open positions including, via any competitive auction.

(ii) In the event a Default by a User is followed by a Default of the User's authorizing Member, the Corporation may, subject to applicable law, in its discretion treat the Eligible Securities Transactions of the Defaulting Member and the Defaulting User separately and/or on a combined portfolio basis in whole or in part for purposes of hedging positions and liquidating open positions, including via any competitive auction.

(iii) Additional procedures related to managing a Default of a Member or User may be set forth in the Rules or Procedures specific to a Default affecting Eligible Securities Transactions in a particular Clearing Service.

Procedure 4-5. Default Assessment Powers

(a) As set forth in paragraph (c) of Rule 402, upon a Default of a Member, and after application of funds pursuant to paragraphs (a)(ii) through (iv) of Rule 406, all non-Defaulting Members may be subject to a Default Assessment. If the Corporation's losses and liabilities arising from a Member default exceed 50% of the Corporation's available funds for discharging such losses and liabilities pursuant to paragraphs (a)(ii) through (iv) of Rule 406, the Corporation, in its sole discretion, may issue an advance demand to non-defaulting Members to satisfy Default Assessments up to the amount that would be necessary to discharge such losses and liabilities, subject to the maximum Default Assessment for each member pursuant to paragraph (c) of Rule 402.

(b) Default Assessments shall be applied to each Member pro rata in proportion to its Required Guaranty Fund Contribution. The Default Assessment for each Member shall be calculated by the Corporation and reported to the individual Members in the Guaranty Fund Statement, as set forth in paragraph (b) of Procedure 4-2. During the hours in which the Federal Reserve's wire transfer system ("Fedwire") is in operation, non-Defaulting Members must pay such Default Assessment amount to the Corporation prior to the close of Fedwire on such day; provided, however, that all amounts assessed within one (1) hour prior to the close of Fedwire must be paid to the Corporation no later than one (1) hour after the Fedwire next opens.

(c) Pursuant to paragraph (c) of Rule 402, the total maximum Default Assessment for each Member with respect to each Cooling Off Period will equal two-hundred (200) percent of the Member's Required Guaranty Fund Contribution then in effect at the time of the Member Default.

(d) Any Member that does not satisfy a Default Assessment may be declared to be in Default by the Corporation pursuant to Rule 902.

Procedure 4-6. Cooling Off Period

The Corporation's required contribution to discharge a Defaulting Member's losses and liabilities pursuant to paragraph (a)(iii) of Rule 406 shall be limited to an aggregate maximum of 50 million dollars ($50,000,000) during the Cooling Off Period.

Procedure 4-7. Notice of Member or User Default

(a) As set out in Rule 905, the Corporation will notify Members and Users, via an Advisory, if it ceases to act for a Member or User, either with respect to specific transactions or more generally.

(b) Following any charges against the Guaranty Fund due to Default by a Member, the Corporation will provide updated Guaranty Fund Statements to Members. During the hours in which the Fedwire is in operation, non-Defaulting Members must deposit the necessary amount to

~~restore its Required Guaranty Fund Contribution pursuant to Procedure 4-5 prior to the close of Fedwire on such day; provided, however, that all amounts required to be deposited within one (1) hour prior to the close of Fedwire must be paid to the Corporation no later than one (1) hour after the Fedwire next opens.~~

~~Procedure 4-8. Transfer of User Accounts~~

~~Consistent with Rule 412, if a Member with authorized Users is in Default, the Corporation may arrange to transfer the User Account(s) (which includes the transfer of the positions and margin and available funds held in such User Account(s)) to one or more non-Defaulting Members, if such authorized Users are not themselves in Default. Notwithstanding the above, the Corporation shall be entitled to liquidate any open positions of the User on the Corporation's books.~~

~~Procedure 4-9. Capped Liquidity Facility~~

~~(a) CLF MRA.~~

~~(i) Pursuant to Rule 410, each Member is required to enter into a CLF MRA with the Corporation, which will govern all CLF Event Transactions between the Member, as buyer of Eligible Securities, and the Corporation, as seller of Eligible Securities. Eligible Securities in the context of a CLF Event Transaction, under this Procedure 4-9, may include collateralizing such CLF Event Transaction with Qualified Margin Securities pledged by the Defaulting Member or Defaulting User, collateral deposited to the Guaranty Fund, and Eligible Securities the Corporation receives from non-defaulting Members and non-Defaulting Users that had been intended to be delivered to the Defaulting Member or Defaulting User.~~

~~(ii) The CLF MRA shall be in the form established by the Corporation, which form may be based on SIFMA Master Repurchase Agreement with modifications, and shall incorporate the following terms:~~

~~(A) Each and all CLF Event Transactions shall only be initiated by the Corporation and shall only be terminable by the Corporation in accordance with this Procedures 4-9 unless otherwise provided in paragraph (F) below;~~

~~(B) On any Business Day prior to the CLF Event Transaction Termination Date, if (x) the Corporation has executed a trade liquidating the financed securities, or (y) the Corporation has obtained liquidity through other available liquid resources, the Corporation may, by notice to the buyer, partially or fully terminate any CLF Event Transaction, by repurchasing some or all of the Eligible Securities sold by the Corporation to the buyer;~~

(C) Each CLF Event Transaction may be rolled daily at the discretion of the Corporation and will remain open until (x) the contractual settlement date of a trade liquidating the financed securities, (y) such time that the Corporation has obtained liquidity through its other available liquid resources, or (z) the occurrence of the CLF Event Transaction Termination Date. CLF Event Transactions can have a term of up to 30 days and the Corporation, at its sole discretion, can extend the CLF Event Transaction by up to an additional 30 days;

(D) It shall be an "Event of Default" (as defined in the CLF MRA) with respect to the buyer under a CLF MRA if the Corporation ceases to act for such Member pursuant Rule 901 or 902;

(E) there shall be no "Events of Default" (as defined in the CLF MRA) with respect to the Corporation as the seller other than a Corporation Default within the meaning of Rule 714;

(F) If (x) a Corporation Default has occurred during the term of a CLF Event Transaction or (y) the Corporation has not repurchased all of the Eligible Securities under a CLF Event Transaction by the CLF Event Transaction Termination Date, the buyer of the CLF Event Transactions may exercise the rights of a "non-defaulting party" under the CLF MRA as if an "Event of Default" with respect to the seller had occurred.

(b) Declaration of a CLF Event.

(i) In the event that the Corporation ceases to act for a Member or User pursuant to Chapter 9 of the Rules and determines, in its sole discretion, that any or all steps set forth in Rules 407 (Asset Purchase and Sale), 408 (Non-Committed Repo Financing Lines) and 409 (Committed Repo Financing Lines) are insufficient or likely to be insufficient to meet the Corporation's liquidity needs, the Head of the Corporation (or in the event the Head of the Corporation is unavailable, the Head of Risk, or if the Head of Risk is unavailable, a duly authorized delegate) may declare a CLF Event pursuant to Rule 410. Upon such declaration, the following shall occur:

(A) The Corporation shall notify all Members via an Advisory informing them of the Corporation's declaration of a CLF Event and that the Corporation may enter into one or more CLF Event Transactions with one or more non-Defaulting Members on the terms specified in the CLF MRA;

(B) The Corporation, in its sole discretion, shall determine the non-Defaulting Member(s) with whom it will enter into CLF Event Transactions and the terms of each such transaction;

(C) The Corporation will notify each such Member of the terms under which the Member will enter into a CLF Event Transaction with Corporation, including the amount, rate, description of the Eligible Securities;

(D) The Corporation will then initiate one or more CLF Event Transaction(s) with each such Member at an aggregate purchase price up to the maximum amount allocated to such Member ("Allocated Capped CLF Amount");

(E) Pursuant to the terms of the CLF MRA, each CLF Event Transaction will remain open until the earlier of (x) such time that the Corporation has executed a trade liquidating the financed securities ("Liquidating Trade"), (y) such time that the Corporation has obtained liquidity through its other available liquid resources and closes the CLF Event Transaction or (z) the CLF Event Transaction Termination Date; and

(F) Upon the Corporation's execution of the Liquidating Trade, the Corporation will notify each Member party to a CLF Event Transaction of the Corporation's termination of the CLF Event Transaction and will instruct each such Member to deliver the related Eligible Securities to the Corporation in order to enable the Corporation to complete settlement of the Liquidating Trade. The Corporation will endeavor to terminate the CLF Event Transactions based on the order that the Corporation enters into Liquidating Trades for the related Eligible Securities and the Corporation's ability to meet its risk management objectives of minimizing liquidation losses on the applicable Eligible Securities and supporting the stability of the broader financial market.

(ii) Whenever the Corporation determines that it no longer needs the financing provided by CLF Event Transactions, the Corporation may terminate the CLF Event Transactions and notify relevant Members to deliver the Eligible Securities to the Corporation in exchange for cash.

(c) Calculation of Required CLF Size and Allocated Capped CLF Amounts.

(i) The Corporation shall conduct an assessment at least every quarter, or more frequently as the Corporation deems appropriate, to evaluate the hypothetical

~~liquidity need the Corporation may experience in the event of a Default of a Participant Family ("Stress Potential Payment Obligation" or "SPPO") to which the Corporation would be obligated to make the largest cash payment. The Corporation may consider other factors it deems relevant, such as historical volatility and concentration of SPPO amounts, the historical total amounts of Allocated Capped CLF Amounts, the historical size transactions cleared by the Corporation, and other factors in determining the required size of the CLF (e.g., aggregated Allocated Capped CLF Amounts of all Members).~~

~~(ii) The Corporation shall calculate each Member's Allocated Capped CLF Amount at such time the Corporation performs its assessment referred to in clause (i) above. Each Member's Allocated Capped CLF Amount will be calculated on a pro rata basis, based on the size of each Member's SPPO relative to the total aggregate SPPO across all Members. Each Member's SPPO is calculated by taking the sum of the Member's largest SPPO plus the largest SPPO of the two Users it authorized, if any, over the lookback period. The Corporation, at its sole discretion, can add a multiplier to a particular Member's SPPO as part of determining that Member's Allocated Capped CLF Amount. The Corporation will provide a periodic report to each Member with its individual Allocated Capped CLF Amount. In the event that the Corporation declares a CLF Event, Members shall be required to enter into CLF Event Transactions up to their individual Allocated Capped CLF Amount as calculated by the Corporation.~~

~~(d) Required Attestation and Acknowledgment.~~

~~(i) On at least an annual basis, an authorized representative, as designated pursuant to Rule 312, of each Member shall satisfactorily complete an attestation declaring the Member understands and acknowledges to be bound, by the Corporation's Rules with respect to CLF, the Corporation's use of such Member's Allocated Capped CLF Amount and associated obligations, and that such Member has suitably incorporated that individual Member's Allocated Capped CLF Amount into their ongoing liquidity planning in order to be prepared to meet their obligation as may be required. Each Member must complete the aforementioned attestation within the period prescribed by the Corporation.~~

~~(ii) From time to time the Corporation may require acknowledgements by Members, including, but not limited to, acknowledgement that they have been informed of a change to their Allocated Capped CLF Amount, a declaration that they are prepared to enter into a CLF Event Transaction up to the full amount of Allocated Capped CLF Amount if instructed to do so by the Corporation following the declaration of a CLF Event, acknowledgement of the Rules in the event of a change to the authorized representative of the Member, or other acknowledgements~~

as deemed relevant by the Corporation. Each Member must complete the aforementioned acknowledgement within the period prescribed by the Corporation.

(e) Report of Actions. If the Corporation enters into repo transactions involving Eligible Securities under non-committed master repurchase agreement pursuant to Rule 408 or a CLF MRA pursuant to Rule 410, it shall promptly notify the SEC and other relevant regulatory agency(ies) of such action, by the close of business on the day such action is taken where practicable.

(f) Operational Testing. On at least an annual basis, the Corporation shall conduct a CLF MRA test with all Members. The test will be designed to ensure operational capability of the Corporation and its Members to support the operational aspects of entering into one or more CLF Event Transactions in the event the Corporation declares a CLF Event. All Members, upon request by the Corporation, shall participate in a hypothetical CLF Event and a CLF Event Transaction and will be required to demonstrate its operational capability as established by the Corporation. The Corporation may consider any other CLF Event Transaction, actual or test, that has been executed by the Corporation with that Member in satisfaction of this requirement.

Procedure 4-10. Substitution of Guaranty Fund Cash

(a) Procedures for substitution of Guaranty Fund cash pursuant to Rule 411. Consistent with Rule 411, the Corporation may substitute cash deposited by non-Defaulting Members in the Guaranty Fund with U.S. Treasury securities pledged to the Corporation for the Account of a Defaulting Member or a Defaulting User, including securities coming in to the Defaulting Member or Defaulting User in settlement of its Eligible Securities Transactions.

(b) The Corporation shall notify impacted non-Defaulting Members via an Advisory that it is effecting a substitution of Guaranty Fund cash for U.S. Treasury securities pursuant to Rule 411. The Advisory shall state the total amount of the cash substitution and identify the U.S. Treasury securities to be deposited in the Guaranty Fund by CUSIP. U.S. Treasury securities deposited in the Guaranty Fund in substitution of cash therein shall be allocated pro rata to the cash Guaranty Fund contributions of the non-Defaulting Members, and the Corporation shall inform each non-Defaulting Member of the amount of its cash Guaranty Fund contribution that is subject to substitution.

(c) Pursuant to Rule 411, the market value of U.S. Treasury securities deposited in the Guaranty Fund in substitution of cash deposits therein shall be subject to an appropriate haircut established by the Corporation in its discretion. The market value of the U.S. Treasury securities deposited in the Guaranty Fund shall be determined by the Corporation as of the Close of Business on the Business Day prior to the date of cash substitution. The market value of the U.S. Treasury securities, after application of the haircut, shall equal the value of the cash substituted pursuant to Rule 411.

(d) The Corporation shall complete substitution of U.S. Treasury securities for cash Guaranty Fund contributions pursuant to Rule 411 within such time as the Corporation shall determine after the Corporation notifies non-Defaulting Members that it is effecting such substitution.

(e) A non-Defaulting Member whose cash Guaranty Fund contribution has been substituted, in whole or part, with U.S. Treasury securities may, within twenty four (24) hours, request that the Corporation replace the cash for the substituted U.S. Treasury securities, to the extent still on deposit, within twenty nine (29) days of the date of substitution.

(f) Notwithstanding paragraph (e) above, above, as soon as reasonably practicable, the Corporation shall replace the substituted U.S. Treasury securities in the Guaranty Fund for cash when available.

(g) Procedures for substitution of Guaranty Fund cash pursuant to paragraph (b) of Rule 403. With respect to the Corporation's substitution instruction to a Member to deposit cash in exchange for U.S. Treasury securities on deposit in satisfaction of the Member's Required Guaranty Fund Contribution pursuant to paragraph (b) of Rule 403, such instructions will be made during the hours in which the Federal Reserve's securities wire transfer system is in operation, provided, however that if such directions are given less than sixty (60) minutes prior to the close of the Federal Reserve's securities wire transfer system, the substitution required hereunder shall be made within sixty (60) minutes after the Federal Reserve's securities wire next opens. To the extent that a Member(s) fails to provide U.S. Dollar cash within the deadlines specified above, the Corporation may debit U.S. Dollar cash from that Member's Bank account for its Member Account in the amount of the Member's non-U.S. Dollar cash Required Guaranty Fund Contribution then on deposit with the Corporation.

Procedure 4-11. Non-Committed Repo Financing Lines

(a) Pursuant to paragraph (a)(vii) of Rule 305, all Members must execute a master repurchase agreement with the Corporation, which will govern all non-committed repo transactions between the Corporation and the Member. The Corporation may also, in its sole discretion, sign master repurchase agreements with entities that are not Members for the purposes of establishing additional non-committed repo financing lines.

(b) Pursuant to Rule 408, if the Corporation deems it appropriate, in its sole discretion, it may enter into repo transactions with any market participant so willing, and no Member or User shall take any action to interfere intentionally with such repo transactions.

(c) Transaction terms for non-committed repo transactions will be negotiated and set with the counterparty at the time of the transaction.

~~(d) Each Member that has entered into such master repurchase agreement shall periodically test repurchase transactions with the Clearing House when requested by the Clearing House.~~

~~Procedure 4-12. Committed Repo Financing Lines~~

~~(a) Pursuant to Rule 409, the Corporation may enter into master repurchase agreements with an entity or multiple entities, if the Corporation deems it necessary or desirable, in its sole discretion, to obtain and maintain a committed repo financing line. No Member or User shall take any action to interfere intentionally with such repo transactions.~~

~~(b) Transaction terms of such committed repo transactions will be established in accordance with the terms of the committed master repurchase agreement.~~

~~(c) The Corporation will conduct a test with any committed repo counterparty on at least an annual basis to affirm operational readiness.~~

CHAPTER 5. MARGIN AND OUTSTANDING EXPOSURE SETTLEMENT

Procedure 5-1. Margin and Outstanding Exposure Settlement; Clearing Cycles

(a) Consistent with Rules 501 and 506, (A) a Member for its Member Account, (B) a Member on behalf of its authorized Supported Users for their Supported User Accounts, and (C) an Independent User for its Independent User Account, must post initial margin and pay Outstanding Exposure Settlement in satisfaction of their requirements under the Rules and Procedures. The Daily Margin Report, as described in this Procedure 5-1 will indicate, among other things specific to the Clearing Service, for each clearing cycle:

(i) the amount of initial margin that a Member must post with respect to its proprietary Eligible Securities Transactions and on behalf of its Supported Users with respect to their Eligible Securities Transactions and that an Independent User must post with respect to its Eligible Securities Transactions; and

(ii) the amount of Outstanding Exposure Settlement that a Member must pay (or is due to receive) with respect to its proprietary Eligible Securities Transaction and on behalf of its Supported Users with respect to their Eligible Securities Transactions and that an Independent User must pay (or is due to receive) with respect to its Eligible Securities Transactions.

(b) Consistent with Rule 508, the Corporation shall make the Daily Margin Report available through the Corporation's clearing system ("Securities Clearing System") and via secure file transfer protocol ("SFTP"), or via such other means determined by the Corporation, to each Member and User following each clearing cycle on each Business Day, at such time as the Corporation shall determine.

(c) During each Business Day, the Corporation shall perform an end-of-day clearing cycle and at least one intraday clearing cycle whereby initial margin requirements are satisfied by and Outstanding Exposure Settlement is paid to or received from Members and Users (as applicable).

(i) End-of-Day. At approximately 8:30 a.m. Eastern Time on the next Business Day after the Business Day for which such initial margin and Outstanding Exposure Settlement requirements were calculated, the Corporation shall collect initial margin and Outstanding Exposure Settlement (as applicable) from each Member and User (as applicable) by debiting the Member Account, Supported User Accounts, and Independent User Accounts at one or more Banks designated pursuant to Rule 507. Subsequently, the Corporation shall pay Outstanding Exposure Settlement to each Member or User (as applicable) by crediting the Member Account, Supported User Account, and Independent User Account, as applicable, at one or more Banks designated pursuant to Rule 507. The Corporation shall require the Corporation's Bank(s) to confirm to the Corporation via the SWIFT system, or such other system that the Corporation may

designate, that the amounts required pursuant to these Rules and Procedures have been received or paid (as applicable). The Corporation will make the Daily Margin Report available following completion of the batch processing cycle at approximately 9:00 p.m. Eastern Time on the Business Day for which such initial margin and Outstanding Exposure Settlement requirements were calculated for the end-of-day clearing cycle referenced in this paragraph (c)(i) of this Procedure 5-1. The Corporation will notify Members and Users of any changes to such times in an Advisory.

(ii) Intraday. At approximately 2:00 p.m. Eastern Time on the same Business Day on which such initial margin and Outstanding Exposure Settlement requirements were calculated, the Corporation shall collect initial margin and Outstanding Exposure Settlement (as applicable) from each Member and User (as applicable) by direct debiting the Member Account, Supported User Account, and Independent User Account, as applicable, at one or more Banks designated pursuant to Rule 507. Subsequently, the Corporation shall pay Outstanding Exposure Settlement to each Member or User (as applicable) by crediting the Member Account, Supported User Account, and Independent User Account, as applicable, at one or more Banks designated pursuant to Rule 507. The Corporation shall require the Corporation's Bank(s) to confirm to the Corporation via the SWIFT system, or such other system that the Corporation may designate, that the amounts required pursuant to these Rules and Procedures have been received or paid (as applicable). The Corporation will make the Daily Margin Report available following completion of the batch processing cycle at approximately 1:00 p.m. Eastern Time on the same Business Day on which such initial margin and Outstanding Exposure Settlement requirements were calculated for the intraday clearing cycle referenced in this paragraph (c)(ii) of this Procedure 5-1. The Corporation will notify Members and Users of any changes to such times in an Advisory.

(d) Pursuant to Rule 509, the Corporation may, in its sole discretion, require additional initial margin be posted by any Member(s) or User(s) in any account by such time and in such amount and form as specified by the Corporation. A Member or User is required to meet such additional margin requirement within one (1) hour of being notified or such other longer period of time specified by the Corporation. The Corporation also may, in its sole discretion, run an additional clearing cycle to facilitate the exchange of Outstanding Exposure Settlement, covering settlement variation and any other components deemed appropriate by the Corporation.

Procedure 5-2. Calculation of Initial Margin

(a) Pursuant to Rule 502, the Corporation calculates initial margin requirements under the Portfolio Margin Collection method. Under the Portfolio Margin Collection method, the Corporation calculates initial margin requirements for each Member and User using its proprietary margin model and the Corporation may, in its sole discretion, impose additional initial margin

requirements on a Member or User. The Corporation's initial margin model includes market, liquidity and concentration risk components.

(b) Detailed information about the Corporation's margin model and calculations is available to a Member or User on a confidential basis from the Corporation upon request and subject to any confidentiality requirements imposed by the Corporation.

Procedure 5-3. Acceptable Forms of Initial Margin

(a) Limitations on Types of Collateral. Pursuant to Rule 502, the Corporation shall specify the forms of collateral acceptable for satisfying initial margin requirements. The Corporation will review the forms of collateral acceptable as satisfying initial margin requirements, on at least a monthly basis, and more frequently as market conditions warrant. The Corporation may modify the forms of collateral that are acceptable to satisfy initial margin requirements at any time as the Corporation, in its sole discretion, deems appropriate. The Corporation may impose collateral limits and/or minimums on acceptable forms of collateral for satisfying initial margin requirements at any time as the Corporation, in its sole discretion, deems appropriate to support the safety of the Corporation. The Corporation will notify Members and Users in advance of imposing any such limitations or minimums, where practicable.

(b) No Liens. Consistent with Rule 504, all collateral posted to the Corporation shall be free of liens or any other encumbrances.

(c) Cash. The Corporation shall accept cash in satisfaction of initial margin requirements.

(d) U.S. Treasury Securities. The Corporation will notify Members and Users via Advisory of the terms regarding its acceptance of U.S. Treasury securities in satisfaction of initial margin requirements.

(i) Limitations. Notwithstanding any limitations imposed by the Corporation pursuant to this Procedure 5-3, U.S. Treasury securities posted in satisfaction of initial margin requirements must be denominated in multiples of one hundred dollars ($100).

(ii) Valuation of Securities. The value of U.S. Treasury securities posted as initial margin are based on the current market value, less any adjustments required, as set forth in haircut schedules determined by the Corporation, which the Corporation will make available to Members and Users via Advisory. The Corporation may adjust the haircut schedules at any time as the Corporation, in its sole discretion, deems appropriate to support the safety of the Corporation.

(iii) Maturity. When a U.S. Treasury security posted by a Member or User (as applicable) to satisfy its initial margin requirements matures to cash, the posted

security will be substituted with the cash proceeds. Maturity proceeds that are in excess of the initial margin requirement may be released by the Corporation upon request pursuant to paragraph (c) of Procedure 5-4. Otherwise, the maturity proceeds will be held as initial margin.

Procedure 5-4. Margin Posting and Withdrawal Procedures

(a) Corporation's System. The Corporation requires all Members, Members on behalf of Supported Users, and Independent Users, or an agent of the preceding, including, but not limited to, prime brokers and asset managers, to utilize the system provided by the Corporation to enter and receive information regarding initial margin and Outstanding Exposure Settlement pursuant to this Procedure 5-4, unless otherwise set forth in the Rules and Procedures applicable to the Clearing Service for the Eligible Securities Transactions.

(b) Deposits. Members, Members on behalf of Supported Users, and Independent Users must enter information regarding posting margin into the Corporation's system by the appropriate deadlines, as set forth in the Rules and Procedures.

(i) Members, Members on behalf of Supported Users, and Independent Users shall post cash and securities for purposes of satisfying initial margin requirements as set forth in the Rules and Procedures.

(iv) The Corporation shall instruct Members, Members on behalf of Supported Users, and Independent Users as to which documentation they must complete and provide and/or file to allow the Corporation to perfect a lien on collateral pledged as margin, if applicable.

The Corporation will auto-debit cash to satisfy initial margin requirements from Members, Members on behalf of Supported Users, and Independent Users after each clearing cycle.

(c) Withdrawals. Pursuant to Rule 510, if the amount of margin posted for the benefit of a Member, Member on behalf of a Supported User, or Independent User is in excess of the amount initial margin required (or a Member, Member on behalf of a Supported User, or Independent User seeks to substitute collateral deposited as margin), the Member, Member on behalf of a Supported User, or Independent User may request the release of such excess collateral (or collateral it seeks to withdraw for substitution purposes) by entering a request into the Corporation's system. The requirements for withdrawing excess margin collateral and substituting margin collateral are set forth in the Rules and Procedures for the Clearing Service for the Eligible Securities Transaction.

(i) Excess. The Corporation may permit withdrawal of such excess amount by directing its Bank to deliver it to the relevant account at the Bank of the Member or Independent User, as applicable. The Corporation shall require the Corporation's Bank(s) releasing the applicable amounts to confirm to the Corporation via the SWIFT system, or

such other system that the Corporation may designate, that the appropriate amounts have been released.

Substitution. The Member or Independent User shall transfer securities from the Member's or Independent User's Bank to a collateral account in the Corporation's name at the Corporation's Bank(s). The Corporation shall require the Corporation's Bank(s) to confirm to the Corporation via the SWIFT system, or such other system that the Corporation may designate, that the transferred securities have been received. Upon confirmation, the Corporation shall require the Corporation's Bank(s) to transfer the excess initial margin in the form of cash to the Member's or Independent User's Bank. Substitution will be effected in accordance with the timelines that the Corporation determines and communicates to Members and Independent Users.

~~CHAPTER 6. CLEARANCE AND SETTLEMENT SERVICES~~

~~Procedure 6-1. Submission of Transaction Data~~

~~(a) Pursuant to Rule 602, Members and Users must submit transaction data for Eligible Securities Transactions to the Corporation in the form and at such time as prescribed in the Procedures for the relevant Clearing Service. The Corporation may prescribe further or alternative terms with respect to submission of transaction details in an Advisory.~~

~~(b) If the Corporation rejects the initial submission of transaction data for an Eligible Securities Transaction, the relevant Member(s) and/or User(s) may resubmit the transaction data as described in Procedure for the relevant Clearing Service.~~

~~(c) The Corporation reserves the right to adopt a schedule of fines that will be imposed summarily on a Member or User that has a pattern of making initial submissions of transaction data to the Corporation that are rejected. The Corporation will set forth any such schedule in an Advisory or in an update to these Procedures.~~

~~Procedure 6-2. Product-Specific Clearance and Settlement Procedures~~

~~The Procedures related to clearance and settlement of an Eligible Securities Transaction are set forth in the Procedures for the relevant Clearing Service for the Eligible Securities Transaction.~~

~~CHAPTER 7. CORPORATION REQUIREMENTS~~

~~Procedure 7-1. Member and User Access to Corporation's Audited Financial Statements~~

~~(a) The Corporation's audited annual financial statement will include a report from the Corporation's public accounting firm that complies with paragraphs (a) through (d) of Rule 210.2-02 under the Securities Exchange Act.~~

~~(b) Pursuant to paragraph (b) of Rule 701, the Corporation will post to its website within sixty (60) days following the close of the Corporation's fiscal year its audited annual financial statements.~~

~~Procedure 7-2. Notice of Proposed Amendments to Rules and Procedures~~

~~Pursuant to Rule 706, the Corporation will notify all Members and Users when it has filed a proposed rule change, and any amendments thereto, by publishing any such proposed changes or amendments on the Corporation's website within two (2) Business Days of filing such proposed changes or amendments with the SEC.~~

~~Procedure 7-3. Release of Clearing Data~~

~~(a) Pursuant to Rule 709, Members and Users may request Clearing Data relating to their particular clearing activity, and a Member may request Clearing Data about a User that it authorizes, by submitting a written request to the Corporation's staff.~~

~~(b) The Corporation will post to its website basic data with respect to the volume and values of Eligible Securities Transactions cleared through the Corporation.~~

~~Procedure 7-4. Forms, Media and Technical Specifications~~

~~From time to time the Corporation may specify various forms which Members and Users must use to submit instructions and data to the Corporation and which the Corporation uses to report transactions and information to Members and Users. The information called for by such forms may be submitted or received in such form and format as the Corporation shall from time to time permit. Submission of such information in other media shall be made in accordance with specifications determined from time to time by the Corporation.~~

~~CHAPTER 8. FEES AND CHARGES~~

~~Procedure 8-1. Product-Specific Fees and Charges~~

~~The fees and charges arising from the provision of the Corporation's services will be set out in a Schedule of Fees specific to each Eligible Securities Transaction, which the Corporation will publish on its website.~~

~~CHAPTER 9. CEASING TO ACT~~

~~Procedure 9-1. Failure to Comply with Requirements for Member or User Status~~

~~(a) In the event that a Member or User becomes aware that it is no longer in compliance with one or more of the applicable requirements for Member or User status set forth in the Rules or Procedures, the Member or User, as applicable, must promptly notify the Corporation of such noncompliance. Such notice must be provided via e-mail or such other system as the Corporation may designate, to the Corporation no later than the same calendar day as the day on which the Member or User first becomes aware of its noncompliance.~~

~~(b) If the Corporation determines that a Member or User fails to satisfy any of the applicable requirements and/or obligations for Member or User status set forth in the Rules, the Corporation may cease to act for the Member or User pursuant to Rule 902. Such cessation may include termination of the Member's or User's status as Member or User with the Corporation.~~

~~(c) The Corporation may choose not to cease to act for a Member or User pursuant to paragraph (b) of this Procedure 9-1 if the Corporation determines that, depending upon the specific circumstances and the record of the Member or User, it is appropriate instead to establish for such Member or User a time period (the "Noncompliance Time Period") during which the Member or User must use every effort to 907come back into compliance with the applicable requirements for Member or User status.~~

~~(d) At the end of the Noncompliance Time Period, the Corporation shall determine whether the Member or User is in compliance with the applicable requirements for Member or User status set forth in the Rules, including Chapter 3 of the Rules. In the event the Member or User is not in compliance with such requirements by the end of the Noncompliance Time Period, the Corporation shall cease to act for such Member or User pursuant to Rule 902. Such cessation to act shall occur within such time period as the Corporation shall determine.~~

~~(e) Notwithstanding anything to the contrary set forth in this Procedure 9-1, if the Corporation, in its sole discretion, determines that a Member's financial or operational condition or User's operational condition has significantly deteriorated during a Noncompliance Time Period, the Corporation may cease to act for the Member or User pursuant to Rule 902.~~

~~(f) The Head of the Corporation or his or her designee shall have the authority to take the actions set forth in this Procedure 9-1.~~

Procedure 9-2. Additional Requirements for Members and Users Due to Failure to Comply with Requirements for Member Status

If a Member or User ceases to comply with any of the applicable requirements for Member status or User status set forth in applicable Rules, the Corporation may, for a period beginning with and including on the date on which the Member's or User's failure commenced and until a date determined by the Corporation, in its sole discretion, subject such Member or User to: (i) one or more fines pursuant to Chapter 10 of the Rules; and/or (ii) additional requirements or restrictions pursuant to paragraph (d) of Rule 307.

Procedure 9-3. Posting of Bond, Indemnity, or Guaranty in Event of Insolvency

Pursuant to subparagraph (b)(i) of Rule 901, the Corporation may determine not to cease to act for a Member or User that is insolvent if, after providing notice to the Corporation pursuant to Rule 901, such Member or User provides or posts a bond, indemnity, or guaranty from a third party that is satisfactory to the Corporation, in its sole discretion. The Member or User must provide or post such bond, indemnity, or guaranty within the timeframe determined by the Corporation in its sole discretion.

Procedure 9-4. Procedure for Ceasing to Act and Restrictions on Access to Services Offered by the Corporation

(a) In prohibiting or limiting a Member's or User's access to Clearing Services under Rule 907, the Corporation may:

(i) limit a Member or User from submitting additional transactions to the Corporation for clearing, including placing limits on the proprietary transactions of a Member and the transactions of Users authorized by such Member;

(ii) suspend a Member or User from submitting additional transactions to the Corporation for clearing generally or in a specific Clearing Service; and

(iii) if a Member is suspended from submitting additional transactions to the Corporation for clearing, require such Member to transfer its authorization of any User, along with such User Account, to another Member.

(b) If the Corporation ceases to act for a Member or User with respect to transactions generally or in a specific Clearing Service:

(i) within such time period as the Corporation shall determine, all transactions and open positions of the Member or User must be completed or closed, or, with the approval of the Corporation, another Member or User must be substituted thereon; and

~~(ii) when a Member's or User's status as Member or User with the Corporation is terminated, the Corporation will return (x) any contributions to the Guaranty Fund of the Member pursuant to and within the time allotted in Rule 415, so long as the Member does not have any unmet or outstanding obligations to the Corporation, and (y) within such time period as the Corporation shall determine, any margin deposited by the Member or User that is owed to the Member or User.~~

~~(c) If the Corporation ceases to act for the Member or User, including by terminating the Member or User's status with the Corporation, the Member or User remains responsible for discharging any obligations it incurred prior to such cessation-to-act, including any obligations resulting in such cessation-to-act.~~

~~(d) In determining whether to cease to act for a Member or User pursuant to Rule 902, or to prohibit or limit the access of a Member or User to services offered by the Corporation pursuant to Rule 907, the Head of the Corporation or his or her designee may consider all information available to them, including, without limitation: reports submitted by Members and Users or information gathered pursuant to Chapter 3 of the Rules or the Rules for the relevant Clearing Service(s); the Corporation's periodic reviews of Members and Users pursuant to Procedure 3-4; and information gathered by, and determinations made by, the Corporation's staff relating to internal assessments of Members and Users.~~

~~(e)~~

~~CHAPTER 10. DISCIPLINARY ACTIONS AND OTHER ADVERSE ACTIONS~~

~~Procedure 10-1. Delegation of Board Authority to Impose Sanctions~~

~~The Board may appoint a Hearing Panel of the Corporation to impose appropriate sanctions applicable to Members and Users, including censure, fine, suspension or termination; limitation of activities, functions, and operations of a Member or User; or any other fitting sanction.~~

~~**CHAPTER 11. RESERVED**~~

~~**CHAPTER 12. RESERVED**~~

~~**CHAPTER 13. RESERVED**~~

~~CHAPTER 14. RESERVED~~

~~CHAPTER 15. INTEREST RATE SECURITIES CLEARING SERVICE~~

~~Procedure 15-1. Eligible Securities Transactions~~

~~(a) Within the Interest Rate Securities Clearing Service, the Corporation shall clear Repo Transactions that are repo transactions in Eligible Securities that are U.S. Treasury securities and Cash Treasury Transactions that are purchases and/or sale transactions of Eligible Securities that are U.S. Treasury securities. From time to time, the Corporation shall make available to Members and Users via an Advisory: (i) a description of the terms of Repo Transactions that the Corporation will accept for clearing, including the maturities of such Repo Transactions and the maturities of U.S. Treasury securities that are Eligible Securities for purposes of such Repo Transactions; and (ii) a list of U.S. Treasury securities that are Eligible Securities for the purposes of Cash Treasury Transactions.~~

~~(b) The original parties to a Clear to Hold Transaction may only deliver collateral to settle the Repo Transaction that meets the requirements of a General Collateral Bucket as defined in Rule 101. The original parties to a Cash Treasury Transaction or a Clear to Deliver Transaction may only deliver collateral to settle the applicable Cash Treasury Transaction or Repo Transaction that meets the requirements of eligible collateral set out by the Corporation.~~

~~(c) From time to time, the Corporation shall make available to Members and Users via an Advisory a description of the General Collateral Bucket and Eligible Securities that the Corporation will accept as collateral underlying a Cash Treasury Transaction or a Repo Transaction submitted to the Corporation for clearing.~~

~~Procedure 15-2. RESERVED~~

~~Procedure 15-3. Submission of Eligible Securities Transactions for Clearing~~

~~(a) Members and Users shall submit Cash Treasury Transactions and Repo Transactions for clearing to the Securities Clearing System. Access to such system(s) shall be in accordance with specifications established and provided by the Corporation.~~

~~(i) Clear to Deliver Transactions and Cash Treasury Transactions shall be submitted to the Securities Clearing System (x) as a matched Repo Transaction or Cash Treasury Transaction from an Eligible Platform, (y) as a single-sided Repo Transaction or single-sided Cash Treasury Transaction submitted from an Eligible Platform to be matched in the Corporation's clearing system, or (z) a transaction entered by one Participant via the Corporation's interface and alleged to another Participant to claim or decline. The term "single-sided Repo Transaction" refers to either the leg of a Repo Transaction in which the securities seller agrees to transfer Eligible Securities to the securities buyer against the transfer of funds by the securities buyer, or to the leg of a Repo Transaction in which the~~

~~securities buyer agrees to the transfer of funds to the securities seller against the transfer of Eligible Securities by the securities seller. The term "single-sided Cash Treasury Transaction" refers to either the leg of a Cash Treasury Transaction in which the seller agrees to transfer Eligible Securities to the buyer against the transfer of funds by the buyer, or to the leg of a Cash Treasury Transaction in which the buyer agrees to the transfer of funds to the seller against the transfer of Eligible Securities by the seller.~~

~~(A) Clear to Deliver Transactions and Cash Treasury Transactions must be sent through secure connections from an Eligible Platform or from Members or Users and must be formatted in accordance with the Corporation's messaging specifications. The Corporation will respond with a confirmation message if the submission is valid. Any transaction messages rejected for invalid message formatting may be corrected and resubmitted for clearing. Members or Users may also enter a single-sided Repo Transaction or single-sided Cash Treasury Transaction, or claim or decline a transaction that has been alleged to them by another Member or User using the Corporation's trade submission user interface.~~

~~(B) The Corporation will match two single-sided Clear to Deliver Transactions representing the securities purchase and securities sale legs of the same Repo Transaction submitted from an Eligible Platform or entered directly into the Securities Clearing System by identifying the Member(s) and/or User(s) that were the parties to the original Repo Transaction based on the information required to be submitted to the Corporation for each Repo Transaction as set out in paragraph (b) of this Procedure 15-3. Any pending, unmatched single-sided Repo Transactions or unclaimed alleged trades will be rejected by the Corporation at the end of the Business Day. An unmatched single-sided Repo Transaction is either (c) the securities purchase leg of a Repo Transaction for which a contra securities sale leg has not been submitted to the Corporation for matching, or (d) the securities sale leg of a Repo Transaction for which a contra securities purchase leg has not been submitted to the Corporation for matching. An unclaimed alleged trade is a trade that has been submitted in the clearing system and alleged to a counterparty and has not been accepted or rejected by the counterparty.~~

~~(C) The Corporation will match two single-sided Cash Treasury Transactions representing the buy and sale legs of the same Cash Treasury Transaction submitted from an Eligible Platform or entered directly into the Securities Clearing System by identifying the Member(s) and/or User(s) that were the parties to the original Cash Treasury Transaction based on the information required to be submitted to the Corporation for each Cash Treasury Transaction as set out in paragraph (c) of this Procedure 15-3. Any pending, unmatched single-sided Cash Treasury Transactions or~~

unclaimed alleged trades will be rejected by the Corporation at the end of the Business Day. An unmatched single-sided Cash Treasury Transaction is either (a) the purchase leg of a Cash Treasury Transaction for which a contra sale leg has not been submitted to the Corporation for matching, or (b) the sale leg of a Cash Treasury Transaction for which a contra purchase leg has not been submitted to the Corporation for matching. An unclaimed alleged trade is a trade that has been submitted in the clearing system and alleged to a counterparty and has not been accepted or rejected by the counterparty.

(D) With respect to a Cash Treasury Transaction submitted on a "When Issued" basis, the Corporation shall close the novated When Issued Cash Treasury Transaction and automatically create a new Cash Treasury Transaction on the instrument following completion of the applicable primary auction.

(ii) Clear to Hold Transactions shall be submitted to the tri-party trade entry system of the Corporation's Securities Settlement Bank(s) through acceptable means as set forth by the Corporation's Securities Settlement Bank(s), which will subsequently transmit matched Repo Transactions to the Securities Clearing System.

(b) Both parties to a Repo Transaction must agree to the following information about the transaction, and one or both of such parties must provide the information to the Corporation when submitting the Repo Transaction to the Corporation for clearing:

(i) the full legal names of the Member(s) and/or User(s) that are the parties to the transaction, or such identifier as the Corporation may assign Members and Users;

(ii) identification of the Repo Transaction as a Clear to Deliver Transaction or a Clear to Hold Transaction;

(iii) the notional amount of the Repo Transaction;

(iv) the CUSIP or General Collateral Bucket of the securities to be provided as collateral for the Repo Transaction, as applicable;

(v) identification of which party is the cash borrower and which is the cash lender;

(vi) the start date and end date of the Repo Transaction;

(vii) the start cash and end cash of the Repo Transaction; and

(viii) the repo rate.

(c) Both parties to the Cash Treasury Transaction must agree to the following information about the transaction, and one or both of such parties must provide the information to the Corporation when submitting the Cash Treasury Transaction to the Corporation for clearing:

(i) the full legal names of the Member(s) and/or User(s) that are the parties to the transaction, or such identifier as the Corporation may assign Members and Users;

(ii) the notional amount of the Cash Treasury Transaction;

(iii) the cash amount of the Cash Treasury Transaction;

(iv) the CUSIP of the U.S. Treasury security or securities that are subject to the Cash Treasury Transaction

(v) the settlement date of the Cash Treasury Transaction; and

(vi) The identity of which party is the buyer of the U.S. Treasury security or securities and which party is the seller of the U.S. Treasury security or securities.

Procedure 15-4. Functions of the Securities Clearing System

The following functions are performed within the Corporation's Securities Clearing System:

(a) The Corporation will provide confirmation via a report ("Clearing Confirmation") through the Securities Clearing System user interface, as well as through the system's messaging service, to each Member and User that is a party to a Repo Transaction or a Cash Treasury Transaction and any relevant Eligible Platform and/or Securities Settlement Bank identified to the Corporation with respect to the trade submission. The Clearing Confirmation shall state that the Repo Transaction or Cash Treasury Transaction has been submitted for clearing and that novation is pending, provided that all of the information set forth in paragraph (b) of Procedure 15-3 is submitted. The Corporation will distribute the Clearing Confirmation within such period as the Corporation shall determine.

(b) The Clearing Confirmation issued by the Corporation through the Clearing System to each Member and/or User that is a party to a Cash Treasury Transaction, Clear to Deliver Transaction, or Clear to Hold Transaction shall serve to confirm that the relevant transaction is submitted in the manner and with all necessary information prescribed by the Corporation, complies with any applicable credit controls, and that the Corporation has not ceased to act on behalf of either such party pursuant to Chapter 9 of the Rules.

(c) The Corporation will provide notice of the rejection of a Repo Transaction or a Cash Treasury Transaction within the Securities Clearing System via a Clearing Confirmation, if: (x)

any of the information set forth in paragraph (b) or (c) of Procedure 15-3, as applicable, is missing or inaccurate; (y) if a Repo Transaction or Cash Treasury Transaction that a User submits is does not comply with credit controls that its authorizing Member sets; or (z) if the Corporation has ceased to act on behalf of such User or Member. The Clearing Confirmation will identify the reasons for such rejection. The Corporation will provide notice of such rejection at the time the Repo Transaction or Cash Treasury Transaction has been rejected or, if rejected due to a deadline, by the following times on the date of submission of the Repo Transaction to the Corporation for clearing: 2:55 p.m. Eastern Time for Repo Transactions submitted for T+0 settlement and 8:00 PM Eastern Time for Cash Treasury Transactions and Repo Transactions submitted for T+1 settlement. Rejected trades are subject to the requirements of paragraph (b) of Rule 202 and paragraph (d) of Rule 602.

(i) If a Repo Transaction or Cash Treasury Transaction is rejected because any of the information set forth in paragraph (b) or (c) of Procedure 15-3 is missing or inaccurate, the transaction information may be corrected and resubmitted to the Corporation.

(ii) If a Repo Transaction or a Cash Treasury Transaction that a User submits is rejected because it does not comply with credit controls set by its authorizing Member, the User may contact the Member to amend the credit control and resubmit the transaction to the Corporation. If the Member is not willing to amend or adjust the relevant credit control, the User may resubmit the transaction to the Corporation through another authorizing Member.

(iii) If a Repo Transaction or a Cash Treasury Transaction is rejected because the Corporation has ceased to act on behalf of a User or Member that is a counterparty on such transaction, the transaction may not be resubmitted.

(d) With respect to a Repo Transaction or a Cash Treasury Transaction to which a User is a counterparty, the Member authorizing the User must confirm its authorization of such transaction to the Corporation through the Securities Clearing System by using credit controls hosted in the Securities Clearing System, a pre-approval indicator sent by an Eligible Platform to the Securities Clearing System indicating that the Member has pre-approved its authorization of the transaction, or explicitly claiming or rejecting a trade via electronic message to the Securities Clearing System.

Procedure 15-5. Novation

(a) Upon completion of the confirmations set forth in Procedure 15-4, the Corporation shall novate the Repo Transaction or Cash Treasury Transaction pursuant to Rule 1503.

(b) The Corporation shall provide each Member and/or User that was party to the original Repo Transaction or Cash Treasury Transaction, as well as the Eligible Platform and Securities Settlement Bank system, as applicable, with a Clearing Confirmation. The Clearing Confirmation shall:

(i) State that the original Repo Transaction or Cash Treasury Transaction has been novated as of the time of the Clearing Confirmation, with a trade status of "Cleared", which confirms the creation of the Repo Transaction or Cash Treasury Transaction, as applicable, between the Corporation and the Member or User;

(ii) Serve as confirmation that the Corporation has become either (x) the cash borrower or cash lender in the Repo Transaction, or (y) the securities seller or securities buyer in the Cash Treasury Transaction. The status of the Member or User as cash lender or cash borrower under the novated transaction shall not change relative to the original Cash Treasury or Repo Transaction, but such status shall be indicated in the Clearing Confirmation;

(iii) Set out the terms of the Repo Transaction or Cash Treasury Transaction, which shall match the terms of the original Repo Transaction or Cash Treasury Transaction, as applicable, submitted to the Corporation for clearing; and

(iv) Serves as indication that the novated Repo Transaction or Cash Treasury Transaction is eligible for settlement pursuant to Procedure 15-6.

Procedure 15-6. Settlement

(a) The Corporation shall issue standing settlement instructions to the Corporation's Securities Settlement Bank(s) to settle Clear to Deliver Transactions submitted for T+0 settlement in real-time on a gross basis. The Corporation will instruct the Corporation's Securities Settlement Bank(s) to effect the movement of collateral against cash upon receipt of securities from the Member's or User's Securities Settlement Bank, designated pursuant to paragraph (b) of Rule 604. The Corporation will instruct the Corporation's Securities Settlement Bank(s) to notify the Corporation upon the settlement of any Clear to Deliver Transaction. The Corporation's Securities Settlement Bank(s) shall issue a settlement confirmation of each Clear to Deliver Transaction in real-time to the Member and/or User that is the original counterparty on the transaction.

(b) The Corporation shall calculate settlement obligations on Clear to Deliver Transactions and Cash Treasury Transactions submitted for T+1 settlement on a net basis pursuant to Procedure 15-7. The Corporation shall issue settlement instructions to the Corporation's Securities Settlement Bank(s) for netted Clear to Deliver Transactions and Cash Treasury Transactions scheduled for delivery on the next eligible settlement date following the deadline to submit Clear to Deliver Transactions for T+1 settlement, as permitted by the schedule of the Corporation's Securities Settlement Bank(s). The Corporation will instruct the Corporation's Securities Settlement Bank(s) to effect the movement of collateral against cash upon receipt of securities from the Member's or User's Securities Settlement Bank, designated pursuant to paragraph (b) of Rule 604. The Corporation will require its Securities Settlement Bank(s) to notify the Corporation upon the settlement of any netted Clear to Deliver Transaction.

~~(c) The Corporation shall calculate settlement obligations on Clear to Hold Transactions on a net basis pursuant to Procedure 15-7. The Corporation shall issue settlement instructions to its Securities Settlement Bank(s) for Clear to Hold Transactions submitted for T+0 settlement following the deadline to submit Clear to Hold Transactions for T+0 settlement. The Corporation shall issue settlement instructions to its Securities Settlement Bank(s) for Clear to Hold Transactions submitted for T+1 settlement on a net basis on the next eligible settlement date following the schedule for T+0 settlement on that date. The Corporation will instruct its Securities Settlement Bank(s) to move securities against cash once Members and Users have funded their cash and security obligations in their settlement accounts at the Corporation's Securities Settlement Bank(s).~~

~~(d) The Corporation shall provide Members and Users with instructions for transferring cash and securities to, and receiving cash and securities from, the Corporation's settlement account at its Securities Settlement Bank(s).~~

~~(e)~~ Deadlines~~.~~

~~(i) The Securities Clearing System will open each week for submission of Cash Treasury Transactions and Repo Transactions Sunday at 5:00 p.m. Eastern Time and will remain open for submission until 8 p.m. Eastern Time Friday.~~

~~(ii) The submission window for T+0 Clear to Deliver Repo Transactions opens at 5:00 p.m. Eastern Time Sunday until 2:55 p.m. Eastern Time on Monday. The Securities Clearing System will reopen for T+0 submission at 8:00 p.m. Eastern Time and after the date has rolled in the Securities Clearing System. The Securities Clearing System will reopen for T+0 trade submission each Business Day after the system date has rolled.~~

~~(iii) The submission window for T+0 Clear to Hold Repo Transactions opens at 5:00 p.m. Eastern Time Sunday to 1:00 p.m. Eastern Time on a Monday. The Securities Clearing System will reopen for T+0 submission at 8:00 p.m. Eastern Time and after the date has rolled in the Securities Clearing System. The Securities Clearing System will reopen for T+0 trade submission each Business Day after the system date has rolled.~~

~~(iv) The submission window for T+1 Cash Treasury Transactions, Clear to Deliver Transactions, and Clear to Hold Repo Transactions opens at 5:00 p.m. Eastern Time Sunday to 8:00 p.m. Eastern Time on a Monday. The Securities Clearing System will reopen for T+1 submission at 8:00 p.m. Eastern Time and after the date has rolled in the system. The Securities Clearing System will reopen for T+1 trade submission each Business Day after the system date has rolled.~~

~~(v) At approximately 2:00 p.m. Eastern Time, the Corporation shall calculate net Clear to Hold Transaction settlement requirements for each Member and User that has submitted a Clear to Hold Transaction for T+0 settlement.~~

~~(vi) The Corporation shall issue a Daily Settlement Report to each Member and User via the Securities Clearing System with respect to netted Clear to Hold Transaction settlement obligations and netted Clear to Deliver Transaction and Cash Treasury settlement obligations on each Business Day by such time(s) as the Corporation shall determine in its sole discretion. A Member's or User's settlement obligations shall include both its Repo Transaction Start Leg and Off Leg and Cash Treasury settlement obligations.~~

~~(vii) Members and Users must ensure that Clear to Deliver Transactions submitted for T+0 settlement, and settlement obligations for T+1 Cash Treasury Transactions and Clear to Deliver Transactions from the previous Business Day, settle by 3:00 p.m. Eastern Time. Consequently, Members and Users must comply with the settlement requirements of subparagraph (g)(i)(B) of this Procedure 15-6 by such time. Following settlement, the Corporation will issue a settlement confirmation to the Member or User counterparty to such transaction via the Securities Clearing System and/or through such other means as the Corporation shall determine in its sole discretion. If a Member or User fails to deliver cash or securities to the Corporation's account at the Corporation's Securities Settlement Bank(s) by the deadline, the Corporation shall issue a failure notice to such Member or User identifying the details of such failure via the Securities Clearing System.~~

~~(viii) Members and Users must ensure that Clear to Hold Transactions submitted for T+0 settlement settle by 6:30 p.m. Eastern Time. Consequently, Members and Users must comply with the settlement requirements of subparagraph (g)(i)(A) of this Procedure 15-6 by such time. Following settlement, the Corporation will issue a settlement confirmation to the Member or User counterparty to such transaction via the Securities Clearing System and/or through such other means as the Corporation shall determine in its sole discretion. If a Member or User fails to deliver cash or securities to the Corporation's account at the Corporation's Settlement Bank by the deadline, the Corporation shall issue a failure notice to such Member or User identifying the details of such failure via the Securities Clearing System.~~

~~(ix) The Corporation shall work to resolve fails to deliver for Cash Treasury and Clear to Deliver Transactions from 3:00 p.m. Eastern Time to approximately 3:30 p.m. Eastern Time. The Corporation shall work to resolve fails to deliver for Clear to Hold Transactions for T+0 settlement from 6:30 Eastern Time to approximately 7:00 p.m. Eastern Time. The Corporation shall contact, via such means as the Corporation deems appropriate, Members and Users that have failed to deliver as such to determine the reasons for such failure and to assist in resolving such failure. The Corporation will coordinate~~

with Securities Settlement Banks and other stakeholders, as necessary, to resolve the failure to deliver, including by assessing whether operational issues exist that can be resolved to allow the delivery of cash or securities.

(x) If fails to deliver cash are not resolved by the time periods set forth in subparagraphs (e)(vii) and (e)(viii) of this Procedure 15-6, the Corporation, in its sole discretion, may act in accordance with its Rules and Procedures for ceasing to act for a Member of User.

(xi) At approximately 8:00 p.m. Eastern Time, the Corporation shall calculate settlement obligations for netted Clear to Deliver Transactions and Cash Treasury Transactions submitted for T+1 settlement. The Corporation shall provide updated Daily Settlement Reports at such time(s) as the Corporation shall determine. The Corporation will notify Members and Users of such time(s) via an Advisory.

(xii) The Corporation's deadlines may be modified on certain holidays and non-Business Days. The Corporation will notify Members and Users of the holiday calendar and any modified deadlines via an Advisory or on the Corporation's website.

(f) Confirmations. The Corporation's Securities Settlement Bank(s) shall provide confirmation to the Corporation immediately upon settlement of any Repo Transaction, Cash Treasury Transaction, or netted settlement obligation. The Corporation shall make confirmations available to each Member and User that is counterparty to a Repo Transaction and Clearing Treasury Transaction through the Securities Clearing System and/or through such other means as the Corporation shall determine. The Corporation shall provide such confirmations as soon as reasonably practicable upon settlement of the Repo Transaction or Cash Treasury Transaction and shall include such information as the Corporation shall determine from time to time.

(g) Transfers of Cash and Securities Upon Settlement.

(i) By the settlement deadline set forth in this Procedure 15-6, a Member or User shall comply with the following settlement obligations:

(A) For Clear to Hold Transactions, the Member or User will ensure that sufficient securities and/or cash equal to its net settlement obligations are deposited in the Member's or User's account at the Corporation's Securities Settlement Bank(s). By the settlement deadline set forth in paragraph (e)(viii) of this Procedure 15-6, the Member or User must instruct the Corporation's Securities Settlement Bank(s) to deliver securities and/or cash equal to its net settlement obligation from its account at the Corporation's Securities Settlement Bank(s) to the Corporation's account at the Corporation's Securities Settlement Bank.

(B) For each Clear to Deliver Transaction, Cash Treasury Transaction, or netted settlement obligation, the Member or User will ensure that sufficient securities and/or cash equal to its settlement obligations are deposited in the Member's or User's account at the Member's or User's Securities Settlement Bank(s). Upon notification of novation and by the settlement deadline set forth in subparagraph (e)(vii) of this Procedure 15-6, the Member or User must instruct the Member's or User's Securities Settlement Bank(s) to deliver securities or cash Delivery Versus Payment ("DvP") or Receipt Versus Payment ("RvP") to/from its account at its Securities Settlement Bank(s) to/from the Corporation's account at the Corporation's Securities Settlement Bank(s), as applicable.

(ii) By the settlement deadlines set forth in this Procedure 15-6, the Corporation shall instruct the Corporation's Securities Settlement Bank(s) to transfer cash from its account, in such amount as required to meet its cash delivery obligations as set out in the Daily Settlement Report, to:

(A) the Member's or User's account at the Corporation's Securities Settlement Bank(s), for Clear to Hold Transactions, if such Member or User has a cash receipt entitlement; or

(B) the Member's or User's account at such Member's or User's Securities Settlement Bank(s) for Cash Treasury Transactions or Clear to Deliver Transactions, if such Member or User has a cash receipt entitlement.

(iii) By the settlement deadline set forth in this Procedure 15-6, the Corporation shall transfer or cause to be transferred securities, in such amount as required to meet its settlement obligations as set out in the Daily Settlement Report, to:

(A) the Member's or User's account at the Corporation's Securities Settlement Bank(s), for Clear to Hold Transactions, if such Member or User has a securities receipt entitlement. Such account shall be maintained in the name of, and for the exclusive benefit of, the Member or User that is a party to the Clear to Hold Transaction with the Corporation; or

(B) the Member's or User's account at such Member's or User's Securities Settlement Bank(s), for Clear to Deliver Transactions, if such Member or User has a securities receipt entitlement.

(h) Additional Clear to Deliver Settlement Procedures. With respect to Clear to Deliver Transactions settling on a real-time gross basis:

(i) The Corporation will send RvP and DvP instructions to the Corporation's Securities Settlement Bank(s) along with a binding instruction to facilitate automated settlement. The Member or User shall settle its obligations with the Corporation only after it has received confirmation that the Repo Transaction has been novated by the Corporation.

(ii) The Corporation will require the Corporation's Securities Settlement Bank(s) to reject collateral sent to the Corporation's account if the collateral does not match the binding instructions sent to the Corporation's Securities Settlement Bank(s). Upon such rejection, the Corporation may follow up with the Member or User to resolve the issue.

(iii) If a Member or User cannot satisfy its entire collateral settlement obligation and intends to provide only a portion of the collateral obligation, it must immediately contact the Corporation. The Corporation will only permit partial deliveries that comply with the Corporation's Rules and the rules, policies, procedures, and practices of the relevant Securities Settlement Bank(s) used to settle such obligations, such as by satisfying one or more exact expected delivery amounts of a total larger delivery obligation, as dictated by the Daily Settlement Report. If the other party accepts this partial offer, and at the discretion of the Corporation, the Corporation's staff may update the Corporation's settlement instructions to process the applicable transaction(s) partially, leaving the outstanding portion(s) open and to be settled when final delivery is made.

(i) Charges for Fails to Deliver. The Corporation shall determine any fail charge imposed by the Corporation for failure to deliver securities pursuant to Rule 1506, communicate such charges to Members and Users and collect such charges on a monthly basis.

Procedure 15. 7. Netting

(a) Netting of Clear to Hold Transaction Settlement Obligations, Generally. The Corporation shall separately net cash borrower and cash lender settlement obligations each Business Day for each Member and each User for all Clear to Hold Transactions. The Corporation shall net Start Leg and Off Leg collateral settlement obligations of those transactions only where the Member or User is acting in the same capacity (either as a cash borrower or cash lender). The Corporation shall not net cash settlement obligations against collateral settlement obligations.

(b) Cash Netting – Clear to Hold Transactions.

(i) The Corporation shall separately net a Member's or User's cash delivery obligations and receipt entitlements for those Repo Transactions in which the Member or User is either acting as a cash borrower or a cash lender.

(ii) For those Repo Transactions in which a Member or User is acting as a cash borrower, the Corporation determines the Member's or User's cash delivery obligations and receipt entitlements by:

(A) determining the amount of cash, if any, a Member or User is entitled to receive as a cash borrower with respect to the Start Leg of all Clear to Hold Transactions which begin on a given Business Day.

(B) determining the amount of cash, if any, a Member or User is obligated to return as a cash borrower with respect to the Off Leg of all Clear to Hold Transactions terminating on that same Business Day; and

(C) netting the amounts in subparagraphs (b)(ii)(A) and (b)(ii)(B) of this Procedure 15-7 to determine a net cash settlement delivery obligation or receipt entitlement with respect to those Repo Transactions in which the Member or User is acting as a cash borrower.

(iii) For those Repo Transactions in which a Member or User is acting as a cash lender, the Corporation determines the Member's or User's cash delivery obligations and receipt entitlements by:

(A) determining the amount of cash, if any, a Member or User is obligated to deliver as a cash lender with respect to the Start Leg of all Clear to Hold Transactions which begin on a given Business Day;

(B) determining the amount of cash, if any, a Member or User is entitled to receive as a cash lender with respect to the Off Leg of all Clear to Hold Transactions terminating on that same Business Day; and

(C) netting the amounts in subparagraphs (b)(iii)(A) and (b)(iii)(B) of this Procedure 15-7 to determine a net cash settlement delivery obligation or receipt entitlement with respect to those Repo Transactions in which the Member or User is acting as a cash lender.

(c) Securities Netting – Clear to Hold Transactions.

(i) The Corporation shall separately net a Member's or User's collateral delivery obligations and receipt entitlements for those Repo Transactions in which the Member or User is either acting as a cash borrower or a cash lender.

(ii) For those Repo Transactions in which a Member or User is acting as a cash borrower, the Corporation determines the Member's or User's collateral delivery obligations and receipt entitlements by:

(A) determining the amount of securities, if any, a Member or User is obligated to deliver as a cash borrower with respect to the Start Leg of all Clear to Hold Transactions which begin on a given Business Day.

(B) determining the amount of securities, if any, a Member or User is entitled to receive as a cash borrower with respect to the Off Leg of all Clear to Hold Transactions terminating on that same Business Day; and

(C) netting the amounts in subparagraphs (c)(ii)(A) and (c)(ii)(B) of this Procedure 15-7 on a General-Collateral-Bucket basis to determine a net collateral settlement delivery obligation or receipt entitlement with respect to those Repo Transactions in which the Member or User is acting as a cash borrower. Netting on a "General-Collateral-Bucket basis" shall mean that securities delivery obligations involving securities in a General Collateral Bucket are netted against securities receipt entitlements involving securities in the same General Collateral Bucket.

(iii) For those Repo Transactions in which a Member or User is acting as a cash lender, the Corporation determines the Member's or User's collateral delivery obligations and receipt entitlements by:

(A) determining the amount of securities, if any, a Member or User is entitled to receive as a cash lender with respect to the Start Leg of all Clear to Hold Transactions which begin on a given Business Day;

(B) determining the amount of securities, if any, a Member or User is obligated to return as a cash lender with respect to the Off Leg of all Clear to Hold Transactions terminating on that same Business Day; and

(C) netting the amounts in subparagraphs (c)(iii)(A) and (c)(iii)(B) of this Procedure 15-7 on a General-Collateral-Bucket basis to determine a net collateral settlement delivery obligation or receipt entitlement with respect to those Repo Transactions in which the Member or User is acting as a cash lender.

(d) Netting of Cash Treasury Transactions and Clear to Deliver Transaction Settlement Obligations.

(i) With respect to Clear to Deliver Transactions and Cash Treasury Transactions submitted for settlement on or after T+1, the Corporation shall net a Member's or User's cash and securities settlement obligations each Business Day for obligations to be settled on the next eligible Settlement Date. The Corporation shall net Clear to Deliver Start Leg, Clear to Deliver Off Leg, and Cash Treasury collateral settlement obligations for the same CUSIP. The Corporation determines the Member's or User's netted collateral delivery

obligations and receipt entitlements (the settlement obligation) per CUSIP for each clearing account by:

(A) determining the amount of securities, if any, a Member or User is obligated to deliver as a seller with respect to the Start Leg of all Clear to Deliver Transactions, the End Leg of all Clear to Deliver Transactions, and Cash Treasury Transactions, including failed settlement obligations from a prior settlement day to be attempted for re-delivery, which are scheduled for settlement on a given Business Day.

(B) determining the amount of securities, if any, a Member or User is obligated to receive as a buyer with respect to the Start Leg of all Clear to Deliver Transactions, the End Leg of all Clear to Deliver Transactions, and Cash Treasury Transactions, including failed against settlement obligations from a prior settlement day to be attempted for re-receipt, which are scheduled for settlement on a given Business Day; and

(C) netting the amounts in subparagraphs (d)(i)(A) and (d)(i)(B) of this Procedure 15-7 on a CUSIP basis to determine a net collateral settlement delivery obligation or receipt entitlement with respect to those transactions in which the Member or User has an obligation.

(D) The netted settlement obligation per CUSIP will be instructed to be delivered or received against a cash settlement, based on a single market price per CUSIP, the settlement Price, as determined by the Corporation.

(E) The cash settlement value for each settlement obligation will equal the collateral par amount of securities multiplied by the Corporation's settlement price to determine the settlement value cash amount to be received on each collateral delivery obligation or paid on each collateral receipt entitlement.

(e) For purposes of this Procedure 15-7, a Repo Transaction is considered to "begin on a given Business Day" if the settlement of the Start Leg of such Repo Transaction is to occur on such Business Day.

Procedure 15-8. Settlement Modification

(a) Settlement Modification of Cleared Repo Transactions by Original Counterparties.

(i) Pursuant to paragraph (d) of Rule 1503, the Member(s) and/or User(s) that were the two counterparties to an original Repo Transaction submitted to the Corporation for clearing may, at any time prior to the submission deadline for the Business Day on which such Repo Transaction is settling or at such later time as approved by the Corporation, mutually agree to modify the Repo Transaction pursuant to these settlement modification

procedures under this Procedure 15-8. If a Repo Transaction is modified pursuant to this Procedure 15-8, the Corporation's Rules and Procedures for failures and ceasing to act for a Member or User do not apply to the original Repo Transaction. If, however, the counterparties fail to notify the Corporation about modification of a Repo Transaction submitted for clearing before delivery of securities is due relating to such transaction, the Corporation may impose fail charges pursuant to Rule 1506 for failure to deliver such securities or may take action in accordance with its Rules and Procedures for ceasing to act for a Member of User.

(ii) At the discretion of the Corporation, the Member(s) and/or User(s) that were the two counterparties to an original Repo Transaction submitted to the Corporation for clearing may also mutually agree to terminate a Repo Transaction after settlement of the Start Leg of the Repo Transaction, but before the end-of-cycle on the Business Date prior to the settlement date of the Off Leg of the Repo Transaction, pursuant to this Procedure 15-8(a).

(b) Settlement Modification of Cash Treasury Transactions by Original Counterparties. Pursuant to paragraph (d) of Rule 1503, the Member(s) and/or User(s) that were the two counterparties to an original Cash Treasury Transaction submitted to the Corporation for clearing may, at any time prior to the submission deadline for the Business Day on which such Cash Treasury Transaction is settling or at such later time as approved by the Corporation, mutually agree to modify the Cash Treasury Transaction pursuant to these settlement modification procedures under this Procedure 15-8. If a Cash Treasury Transaction is modified pursuant to this Procedure 15-8, the Corporation's Rules and Procedures for failures and ceasing to act for a Member or User do not apply to the original Cash Treasury Transaction. If, however, the counterparties fail to notify the Corporation about modification of a Cash Treasury Transaction submitted for clearing before delivery of securities is due relating to such transaction, the Corporation may impose fail charges pursuant to Rule 1506 for failure to deliver such securities and/or may take action in accordance with its Rules and Procedures for ceasing to act for a Member of User.

(c) Previously Executed Settlement Modification Agreement. To modify a Cash Treasury Transaction or Repo Transaction previously submitted for clearing, the original counterparties thereto must have executed a settlement modification agreement, stating that the original counterparties may modify Cash Treasury Transactions or Repo Transactions submitted for clearing pursuant to this Procedure 15-8.

(d) Notification to the Corporation. If the original counterparties to a Repo Transaction or Cash Treasury Transaction agree to modify the transaction, the original counterparties must notify the Corporation as follows:

(i) A Member or User that is a counterparty to the original Repo Transaction or Cash Treasury Transaction must notify the Corporation, by email or through such a system as the Corporation shall designate, by the applicable deadlines described in paragraphs (a) and (b) of this Procedure 15-8.

(ii) Such notification must include the identification number for the original Repo Transaction or Cash Treasury Transaction and the terms of the modifications to which the counterparties to the original Repo Transaction or Cash Treasury Transaction have agreed.

(c) Cancellation of Original Repo Transaction or Cash Treasury Transaction and New Repo Transaction or Cash Treasury Transaction. If the Corporation receives a valid notification to modify or terminate a Repo Transaction or Cash Treasury Transaction pursuant to this Procedure 15-8 from both counterparties to the original Repo Transaction or Cash Treasury Transaction, the Corporation will cancel the original Repo Transaction or Cash Treasury Transaction. The Corporation will cancel all settlement instructions with respect to the canceled transaction, including Cash Treasury or Off Leg settlement instructions in the case of the Off Leg of a terminated Repo Transaction, and the Corporation will no longer have any clearing obligations with respect to that transaction. If the counterparties to the original Repo Transaction or Cash Treasury Transaction agree to a new Repo Transaction or Cash Treasury Transaction to replace the original Repo Transaction or Cash Treasury Transaction, the counterparties must submit a new Repo Transaction or Cash Treasury Transaction for clearing to the Corporation. The Corporation may impose fees on Members and Users for modification and termination of Repo Transactions or Cash Treasury Transactions in such amounts as the Corporation may determine from time to time.

(f) Notification to Original Repo and Cash Treasury Counterparties. The Corporation will notify the counterparties to the original Repo Transaction or Cash Treasury Transaction that the Corporation has canceled the transaction and, if applicable, cleared a new Repo Transaction or Cash Treasury Transaction.

Procedure 15-9. Outstanding Exposure Settlement

(a) Outstanding Exposure Settlement for Eligible Securities Transactions. The Corporation shall collect any net deficit (debit), and pay any net gain (credit), in relation to Outstanding Exposure Settlement, as determined pursuant to Rule 1505 and this Procedure 15-9, for the novated Eligible Securities Transactions of each Member or User (as applicable) in such amount as indicated in the Daily Margin Report. For such purposes, a negative amount will be considered a debit from the relevant Account due to the Corporation, and a positive amount will be considered a credit due from the Corporation to the relevant Account.

(b) Outstanding Exposure Settlement for Clear to Deliver and Cash Treasury Transactions. For Clear to Deliver and Cash Treasury Transactions, Outstanding Exposure Settlement shall

include the components determined pursuant to paragraph (b) and subparagraphs of this Procedure 15-9. For Clear to Deliver and Cash Treasury Transactions, Outstanding Exposure Settlement obligations must be met in cash, unless otherwise permitted by the Corporation.

(i) Settlement Variation for Clear to Deliver Transactions.

(A) The settlement variation for each Clear to Deliver Transaction will be calculated as the difference between the settlement price for the preceding clearing cycle, multiplied by the par amount of the securities. For the first clearing cycle after novation of a Clear to Deliver Transaction, the settlement variation amount shall be represented by the difference between the settlement price versus the price at which the Start Leg was purchased or sold, multiplied by the par amount of the securities. For Clear to Deliver Transactions, the settlement price will include accrued coupon interest for the Business Day on which the settlement variation is calculated.

(B) Where a Clear to Deliver Transaction is netted against another obligation, settlement variation will be calculated based on the delivery settlement obligation, and any subsequent settlement variation calculations will use the settlement price for the delivery settlement obligation as the starting price.

(C) For Clear to Deliver Transactions for which additional purchased securities in the form of Haircut Collateral are held by the purchaser of the transaction, as indicated on the original transaction, the Haircut Collateral amount will be subtracted from the settlement value (i.e., settlement price multiplied by the par amount of the securities) for each calculation of the settlement variation.

(ii) Settlement Variation for Cash Treasury Transactions.

(A) The settlement variation for each Cash Treasury Transaction will be calculated as the difference between the settlement price versus the settlement price for the preceding clearing cycle, multiplied by the par amount of the securities. For the first clearing cycle after novation of a Cash Treasury Transaction, the settlement variation amount shall be represented by the difference between the settlement price versus the price at which the Cash Treasury Transaction was purchased or sold. For Cash Treasury Transactions, the settlement price will be inclusive of accrued coupon interest to the settlement date of the Cash Treasury Transaction.

(B) Where a Cash Treasury Transaction is netted against another obligation, settlement variation will be calculated based on the delivery settlement obligation, and any subsequent settlement variation calculations will use the settlement price for the delivery settlement obligation as the starting price.

(iii) Repo Rate Accrual. Outstanding Exposure Settlement for Clear to Deliver Transactions includes the repo rate accrual. The Corporation shall collect the daily repo rate accrual from a Member or User that is a funds borrower, and pay the daily repo rate accrual to a Member or User that is a funds lender, or in the event of negative repo rates, collect the daily repo rate accrual from a Member or User that is a funds lender, and pay the daily repo rate accrual to a Member or User that is a funds borrower.

(A) The daily repo rate accrual will be calculated by the Corporation as the original Start Cash submitted on the Repo Transaction, multiplied by the repo rate submitted on such Repo Transaction, for each calendar day beginning with the prior Business Day on which the daily repo rate accrual had been processed and following the day count convention standard for the relevant Eligible Securities.

(iv) Price Alignment Amount. The Outstanding Exposure Settlement for Clear to Deliver and Cash Treasury Transactions includes a Price Alignment Amount component.

(A) Price Alignment Amount will be calculated as (x) a debit on transactions that were the receivers (a credit) in respect of the sum of settlement variation and repo rate accrual since the novation of the transaction to the Corporation and held from one Business Day to the next, and (y) a credit on transactions that were the payers (a debit) of the sum of settlement variation and repo rate accrual since novation.

(B) The Price Alignment Amount will be calculated by the Corporation as the sum of the settlement variation and repo rate accrual since novation of the transaction to the Corporation, multiplied by the applicable overnight investment rate as determined by the Corporation, and calculated for each calendar day from the prior Business Day on which the Price Alignment Amount had been processed.

(C) The calculations for the Price Alignment Amount will be reset when a transaction is netted against another obligation for settlement, and any subsequent Price Alignment Amount calculations will only include settlement variation received or paid related to the delivery settlement obligation.

(v) Coupon Payments. The Outstanding Exposure Settlement for Clear to Deliver and Cash Treasury Transactions includes a collateral coupon component.

(A) For Clear to Deliver Transactions, where a coupon payment is made on collateral deposited as the securities leg of a Repo Transaction, the Corporation shall debit the amount of any coupon payment from the relevant Account that is the funds lender for the respective Repo Transactions, and credit the amount of any coupon payment to the relevant Account that is the funds borrower for the respective Repo Transactions.

(B) For delivery settlement obligations of Clear to Deliver and Cash Treasury Transactions, if a failure has occurred on a collateral delivery scheduled on or before the date of record for a Coupon Payment Date, where a coupon payment is made on collateral yet to be delivered by the Member or User who has failed to deliver the collateral, the Corporation shall debit the amount of any coupon payment from the relevant Account that has failed the deliver the collateral, and credit the amount of any coupon payment to the Account that was failed against in the delivery of the collateral, as determined by the Corporation.

(vi) Maturity Adjustment. Outstanding Exposure Settlement for Clear to Deliver and Cash Treasury Transactions includes a maturity adjustment component. For Clear to Deliver and Cash Treasury Transactions, if collateral is held to maturity before it can be delivered, which results in the redemption of the securities upon maturity, a maturity adjustment will be made. The maturity adjustment will be calculated as the difference between the scheduled settlement value of the securities to be delivered to the Account that is the scheduled purchaser of the securities, and the amount of the redemption of the securities paid to the Account that is scheduled to deliver the securities.

(vii) Haircut Collateral Collection or Return. Outstanding Exposure Settlement for Clear to Deliver Transactions may include collection or return of Haircut Collateral where a haircut amount is specified on the original transaction submitted for clearing.

(A) Collection of Haircut Collateral will be facilitated through Outstanding Exposure Settlement for T+1 settlement, where the Haircut Collateral cannot be collected through gross settlement as would be the case for T+0 settlement. Collection of Haircut Collateral will be reflected as a debit of the Haircut Collateral cash submitted on the transaction for the funds borrower and a credit for the funds lender.

(B) Return of Haircut Collateral will be facilitated through Outstanding Exposure Settlement on the date of the Off Leg. Return of Haircut Collateral will be reflected as a debit of the Haircut Collateral cash submitted on the transaction for the funds lender and a credit for the funds borrower.

(viii) Transfer Cash. Outstanding Exposure Settlement for Clear to Deliver and Cash Treasury Transactions may include a transfer cash component. The transfer cash can originate on transfers or other atypical transactions, such as those originating from managing a Default. The transfer cash may also be inclusive of other miscellaneous cash adjustment amounts.

(b) Outstanding Exposure Settlement for Clear to Hold Transactions. For Clear to Hold Transactions, Outstanding Exposure Settlement shall include the components determined pursuant to the procedures of the relevant Securities Settlement Bank(s) that operates the service for Clear to Hold Transactions, including those listed in paragraphs (b)(i), (ii), and (iii) of this Procedure 15-9, and shall be calculated in the manner established by such Securities Settlement Bank(s). For

~~Clear to Hold Transactions, Eligible Securities or cash may be delivered as Outstanding Exposure Settlement, and Eligible Securities that are of a different maturity from the Eligible Securities initially delivered to settle such transactions may be delivered as long as they comply with the specifications of the General Collateral Bucket as indicated on the original transaction.~~

~~(i) For Clear to Hold Transactions for which Haircut Collateral is delivered, the Haircut Collateral amount will be used in the calculation of Outstanding Exposure Settlement to determine any deficit.~~

~~(ii) The Outstanding Exposure Settlement for Clear to Hold Transactions includes the repo rate accrual. The daily repo rate accrual is collected from a Member or User that is a funds borrower, and the daily repo rate accrual is paid to a Member or User that is a funds lender, or in the event of negative repo rates, the daily repo rate accrual is collected from a Member or User that is a funds lender, and the daily repo rate accrual is paid to a Member or User that is a funds borrower.~~

~~(iii) The Outstanding Exposure Settlement for Clear to Hold Transactions includes coupon payments. Where a coupon payment is made on collateral deposited as the securities leg of a Clear to Hold Transaction, any such coupon payment from the relevant Account of the funds lender is transferred to the relevant Account of the funds borrower.~~

~~(c)~~ Intraday Clearing Cycle~~. During the intraday clearing cycle on each Business Day as described in paragraph (c) of Procedure 5-1:~~

~~(i) For Clearing to Deliver Transactions and Cash Treasury Transactions, Outstanding Exposure Settlement will be exchanged and will only be inclusive of the settlement variation calculation as detailed in this Procedure 15-9;~~

~~(ii) For Clear to Hold Transactions, Outstanding Exposure Settlement, including transfers of securities, will follow the Outstanding Exposure Settlement procedures for the Securities Settlement Bank(s) as indicated in paragraph (b) of this Procedure 15-9.~~

~~Procedure 15-10. Buy-Ins~~

~~(a) The Corporation, pursuant to paragraph (h) of Rule 1506, may buy in a failing Member or User. The Corporation will issue a notice to the failing Member or User ("Notice of Buy-In"). The Notice of Buy-In shall state that the Corporation is purchasing collateral to satisfy its settlement obligations. After purchasing the collateral, the Corporation will pay to the failing Member or User cash equal to the amount by which the market value of the collateral purchased, plus any reasonable transaction fees incurred in making such purchase, were less than the amount of cash transferred to the Corporation. If the market value of the collateral purchased in effecting the buy-in, plus any reasonable transaction fees incurred in making such purchase, is~~

~~greater than the amount of cash loaned to the Corporation, the failing Member or User shall settle the buy-in by paying such difference to the Corporation in cash.~~

~~(b) After being allocated a fail, and pursuant to Rule 1506, a Member or User may issue a notice to the Corporation of its intention to buy-in the failed securities delivery ("Notice of Intention of Buy-In").~~

~~(c) The Notice of Intention to Buy-In shall state that the Member or User is purchasing collateral and must represent that it shall effect the buy-in at prevailing market prices.~~

~~(d) The Corporation shall transmit its acceptance or rejection of the Notice of Intention to Buy-In to the submitting Member or User. The Corporation shall have the sole discretion to accept or reject the Notice of Intention to Buy-In.~~

~~(e) If the Corporation accepts the Notice of Intention to Buy-In, the Corporation shall settle such buy-in no later than the next Business Day after such acceptance. The Corporation shall settle the buy-in of a Member or User by delivering to the Member's or User's settlement account at the Member's or User's Settlement Bank cash equal to the amount by which the market value of the collateral purchased, plus any reasonable transaction fees incurred in making such purchase, exceed the amount of cash borrowed from the Corporation. If the market value of the collateral purchased in effecting the buy-in, plus any reasonable transaction fees incurred in making such purchase, is less than the amount of cash borrowed from the Corporation, the Member or User that was the cash borrower shall settle the buy-in by delivering such difference in cash to the Corporation's settlement account at the Corporation's Securities Settlement Bank(s).~~

~~Procedure 15-11. Acceleration~~

~~(a) Pursuant to Rule 1507, should the Corporation be unable to borrow the necessary securities or cash to complete any Paired Transactions pursuant to paragraph (c) of Rule 407, the Corporation may exercise its acceleration rights with respect to non-Defaulting Members and non-Defaulting Users such that their delivery obligations under outstanding Repo Transactions with a Defaulting Member or Defaulting User and with remaining maturities of at least two (2) Business Days become due on dates earlier than the original maturity dates of such Repo Transactions.~~

~~(b) The Corporation will notify each non-Defaulting Member or non-Defaulting User that it is impacted by the exercise of the Corporation's acceleration rights and specify the terms of the accelerated transaction, including the accelerated Off Leg settlement date. The accelerated non-Defaulting Member or non-Defaulting User may submit a replacement Repo Transaction for clearing. In the event the accelerated non-Defaulting Member or non-Defaulting User submits a replacement Repo Transaction that is accepted for clearing, the Corporation will compensate such Member or User in an amount equal to the reasonable costs of entering into a replacement Repo Transaction, including any decrease in interest earned under the replacement Repo Transaction as~~

~~compared to the original Repo Transaction. In the event the accelerated non-Defaulting Member or non-Defaulting User does not submit a replacement Repo Transaction for clearing, the Corporation will compensate such Member or User in an amount equal to the cost of such acceleration, as determined by the Corporation in its sole discretion.~~

~~Procedure 15-12. Offsetting Repo Transactions~~

~~Pursuant to Rule 1509, if the Corporation deems it appropriate, it may in its sole discretion enter into an offsetting repo transaction with a non-Defaulting Member or non-Defaulting User that has the effect of extending outstanding settlement obligations for Repo Transactions or Cash Treasury Transactions. The terms of such offsetting repo transactions will be determined based on current market values.~~