

CUSTOMER MARGIN AND SHORT ACCOUNT AGREEMENT

This Customer Margin and Short Account Agreement (the "Agreement") sets forth the respective rights and obligations of Apex, the Introducing Broker and the Customer (all as defined below) in connection with the Customer's margin account opened with the Introducing Broker for the purchase and sale of securities and/or the borrowing of funds. The Customer understands that Apex has been designated as the clearing firm on the account and the Customer hereby acknowledges and agrees that the margin extended to the Customer hereunder is provided by Apex.

1. **Applicable Rules and Regulations.** All transactions shall be subject to the constitution, rules, regulations, customs and usages of the exchange or market and its clearing house, if any, upon which such transactions are executed, except as otherwise specifically provided in this Agreement.
2. **Definitions.** "Introducing broker" means any brokerage firm, which introduces securities transactions on behalf of the Customer, which transactions are cleared through you, whether one or more. "Obligations" means all indebtedness, debit balances, liabilities or other obligations of any kind of the Customer to you, whether now existing or hereafter arising. "Securities and other property" shall include, but shall not be limited to, money, securities, commodities or other property of every kind and nature and all contracts and options relating thereto, whether for present or future delivery. "You", "your" or "Apex" refers to Apex Clearing Corporation. "Customer" refers to the party or parties signing this agreement.
3. **Breach; Security Interest.** Whenever in your discretion you consider it necessary for your protection, or for the protection of the Customer's Introducing Broker or in the event of, but not limited to: (i) any breach by the Customer of this or any other agreement with you or (ii) the Customer's failure to pay for securities and other property purchased or to deliver securities and other property sold, you may sell any or all securities and other property held in any of the Customer's accounts (either individually or jointly with others), cancel or complete any open orders for the purchase or sale of any securities and other property, and/or borrow or buy on any securities and other property required to make delivery against any sale, including a short sale, effected for the Customer, all without notice or demand for deposit of collateral, other notice of sale or purchase, or other notice or advertisement, each of which is expressly waived by the Customer, and/or you may require the Customer to deposit cash or adequate collateral to the Customer's account prior to any settlement date in order to assure the performance or payment of any open contractual commitments and/or unsettled transactions. You have the right to refuse to execute securities transactions for the Customer at any time and for any reason. Any and all securities and other property now or hereafter held, carried or maintained by you in or for any of the accounts of the Customer (either individually or jointly with others), now or hereafter opened, including any accounts in which the Customer may have an interest, shall be subject to a first and prior lien and security interest for the discharge of all of the obligations of the Customer to you, whenever or however arising and without regard to whether or not you have made advances with respect to such securities and other property, and you are hereby authorized to sell and/or purchase any and all securities and other property in any of the Customer's accounts, and/or to transfer any such securities and other property among any of the Customer's accounts, to the fullest extent allowed by law and without notice where allowed. You shall have the right to transfer securities and other property so held by you from or to any other of the accounts of the Customer whenever you so determine.
4. **Liquidation.** In the event of the death of the Customer, or in the event the margin in any account in which the Customer has an interest shall in either your or the Introducing Broker's discretion become unsatisfactory to either you or the introducing broker, or be deemed insufficient by either you or the introducing broker, you are hereby authorized; (a) to sell any or all securities or other property which you may hold for the Customer (either individually or jointly with others); (b) to buy any or all securities and other property which may be short in such accounts; and/or (c) to cancel any open orders and to close any or all outstanding contracts; all without demand for margin or additional margin, notice of sale or purchase, or other notice or advertisement, and that any prior demand or notice shall not be a waiver of your rights provided herein. You may likewise accept and rely upon instructions which you receive from the introducing broker to effect any of the aforementioned transactions (as noted in (a), (b), and (c)). You shall have the discretion to determine which securities and other property are to be sold and which contracts are to be closed. Any such sales or purchases may be made at your discretion on any exchange, the over-the-counter market or any other market where such business is usually transacted, or at public auction or private sale, and you may be the purchaser for your own account.
5. **Cancellation.** You are authorized, in your discretion, should you for any reason whatsoever deem it necessary for your protection, without notice, to cancel any outstanding order, to close out the accounts of the Customer, in whole or in part, or to close out any commitment made on behalf of the Customer.
6. **Payment of Indebtedness Upon Demand.** The Customer shall at all times be liable for the payment upon demand of any obligations owing from the Customer to you, and the Customer shall be liable to you for any deficiency remaining in any such accounts in the event of the liquidation thereof (as contemplated in Paragraph 4 of this Agreement or otherwise), in whole or in part, by you or by the Customer; and the Customer shall make payment of such obligations upon demand.
7. **Liability for Costs of Collection.** The losses, costs and expenses, including but not limited to reasonable attorneys' fees and expenses, incurred and payable or paid by you in the (i) collection of a debit balance and/or any unpaid deficiency in the accounts of the Customer with you or (ii) defense of any matter arising out of the Customer's securities transactions, shall be payable to you by the Customer.
8. **Accounts Carried as Clearing Broker.** The Customer understands that you are carrying the accounts of the Customer as clearing broker by arrangement with the Customer's Introducing Broker through whose courtesy the account of the Customer has been introduced to you. Until receipt from the Customer of written notice to the contrary, you may accept from and rely upon the Customer's Introducing Broker (a) orders for the purchase or sale of securities and other property, and (b) any other instructions concerning the Customer's accounts. The Customer represents that the Customer understands that you act only to clear trades introduced by the Customer's Introducing Broker and to effect other back office functions for the Customer's Introducing Broker. The Customer confirms to you that the Customer is relying for any advice concerning the Customer's accounts solely on the Customer's Introducing Broker. The Customer understands that all representatives, employees and other agents with whom the Customer communicates concerning the Customer's account are agents of the Introducing Broker and not your representatives, employees or other agents. The Customer understands that you are not a principal of or partner with, and do not control in any way, the Introducing Broker or its representatives, employees or other agents. The Customer understands that you will not review the Customer's accounts and will have no responsibility for trades made in the Customer's accounts. You shall not be responsible or liable for any acts or omissions of the Introducing Broker or its representatives, employees or other agents. Notwithstanding the foregoing, in the event that the Customer initiates a claim against you in your capacity as clearing broker and does not prevail, the Customer shall be responsible for the costs and expenses associated with your defense of such claim. The Customer understands you shall be entitled to exercise and enforce directly against the Customer all rights granted to the Introducing Broker.
9. **Communications.** You may send communications to the Customer at the Customer's address on the New Account Application or at such other address as the Customer may hereafter give you in writing, and all communications so sent, whether by mail, telegraph, messenger or otherwise, shall be deemed given to the Customer personally, whether actually received or not. Reports of execution of orders and statements of accounts of the Customer shall be conclusive if not objected to in writing to you, the former within five (5) days and the latter within ten (10) days, after forwarding by you to the Customer by mail or otherwise.
10. **ARBITRATION AGREEMENT. THIS AGREEMENT CONTAINS A PREDISPUTE ARBITRATION CLAUSE. BY SIGNING AN ARBITRATION AGREEMENT THE PARTIES AGREE AS FOLLOWS:**
 - a. ALL PARTIES TO THIS AGREEMENT ARE GIVING UP THE RIGHT TO SUE EACH OTHER IN COURT, INCLUDING THE RIGHT TO A TRIAL BY JURY, EXCEPT AS PROVIDED BY THE RULES OF THE ARBITRATION FORM IN WHICH A CLAIM IS FILED;
 - b. ARBITRATION AWARDS ARE GENERALLY FINAL AND BINDING; A PARTY'S ABILITY TO HAVE A COURT REVERSE OR MODIFY AN ARBITRATION AWARD IS VERY LIMITED.
 - c. THE ABILITY OF THE PARTIES TO OBTAIN DOCUMENTS, WITNESS STATEMENTS AND OTHER DISCOVERY IS GENERALLY MORE LIMITED IN ARBITRATION THAN IN COURT PROCEEDINGS;
 - d. THE ARBITRATORS DO NOT HAVE TO EXPLAIN THE REASON(S) FOR THEIR AWARD UNLESS, IN AN ELIGIBLE CASE, A JOINT REQUEST FOR AN EXPLAINED DECISION HAS BEEN SUBMITTED BY ALL PARTIES TO THE PANEL AT LEAST 20 DAYS PRIOR TO THE FIRST SCHEDULED HEARING DATE.
 - e. THE PANEL OF ARBITRATORS MAY INCLUDE A MINORITY OF ARBITRATORS WHO WERE OR ARE AFFILIATED WITH THE SECURITIES INDUSTRY.

f. THE RULES OF SOME ARBITRATION FORUMS MAY IMPOSE TIME LIMITS FOR BRINGING A CLAIM IN ARBITRATION. IN SOME CASES, A CLAIM THAT IS INELIGIBLE FOR ARBITRATION MAY BE BROUGHT IN COURT.

g. THE RULES OF THE ARBITRATION FORUM IN WHICH THE CLAIM IS FILED, AND ANY AMENDMENTS THERETO, SHALL BE INCORPORATED INTO THIS AGREEMENT.

THE FOLLOWING ARBITRATION AGREEMENT SHOULD BE READ IN CONJUNCTION WITH THE DISCLOSURES ABOVE. ANY AND ALL CONTROVERSIES, DISPUTES OR CLAIMS BETWEEN THE CUSTOMER AND YOU, OR THE INTRODUCING BROKER, OR THE AGENTS, REPRESENTATIVES, EMPLOYEES, DIRECTORS, OFFICERS OR CONTROL PERSONS OF YOU OR THE INTRODUCING BROKER, ARISING OUT OF, IN CONNECTION WITH, FROM OR WITH RESPECT TO (a) ANY PROVISIONS OF OR THE VALIDITY OF THIS AGREEMENT OR ANY RELATED AGREEMENTS, (b) THE RELATIONSHIP OF THE PARTIES HERETO, OR (c) ANY CONTROVERSY ARISING OUT OF YOUR BUSINESS, THE INTRODUCING BROKER'S BUSINESS OR THE CUSTOMER'S ACCOUNTS, SHALL BE CONDUCTED PURSUANT TO THE CODE OF ARBITRATION PROCEDURE OF THE FINANCIAL INDUSTRY REGULATORY AUTHORITY ("FINRA"). THE DECISION AND AWARD OF THE ARBITRATOR(S) SHALL BE CONCLUSIVE AND BINDING UPON ALL PARTIES, AND ANY JUDGMENT UPON ANY AWARD RENDERED MAY BE ENTERED IN A COURT HAVING JURISDICTION THEREOF, AND NEITHER PARTY SHALL OPPOSE SUCH ENTRY.

No person shall bring a putative or certified class action to arbitration, nor seek to enforce any pre-dispute arbitration agreement against any person who has initiated in court a putative class action; or who is a member of a putative class who has not opted out of the class with respect to any claims encompassed by the putative class action until: (i) the class certification is denied; or (ii) the class is decertified; or (iii) the customer is excluded from the class by the court. Such forbearance to enforce an agreement to arbitrate shall not constitute a waiver of any rights under this agreement except to the extent stated herein.

11. **Hypothecation.** Within the limitations imposed by applicable laws, rules and regulations, all securities now or hereafter held by you, or carried by you in any account for the Customer (either individually or jointly with others), or deposited to secure same, may from time to time, without any notice, be carried in your general loans and may be pledged, repledged, hypothecated or rehypothecated, separately or in common with other securities for the sum due to you thereon or for a greater sum and without retaining in your possession or control for delivery a like amount of similar securities. The IRS requires Broker Dealers to treat dividend payments on loaned securities positions as payments received in lieu of dividends for 1099 tax reporting purposes. Taxation of substitute dividend payments may be greater than ordinary on qualified dividends. It is understood, however, that you agree to deliver to the Customer upon demand and upon payment of the full amount due thereon, all securities in such accounts, but without obligation to deliver the same certificates or securities deposited by the Customer originally. Any securities in the Customer's margin or short account may be borrowed by you, or lent to others.

12. **Interest.** Debit balances in all the accounts of the Customer shall be charged with interest in accordance with your established custom, as disclosed to the Customer in the Customer Information Brochure pursuant to the provisions of Rule 10b016 of the Securities Exchange Act.

13. **Margin.** The Customer agrees to maintain in all accounts with you such positions and margins as required by all applicable statutes, rules, regulations, procedures and custom, or as you deem necessary or advisable. The Customer agrees to promptly satisfy all margin and maintenance calls.

14. **Sales.** The Customer agrees to specifically designate any order to sell a security, which the Customer does not own as a short sale, and understands that you will mark such order as a short sale. The Customer agrees that any order which is not specifically designated as a short sale is a sale of securities owned by the Customer, and that the Customer will deliver the securities on or before settlement date, if not already in the account. If the Customer should fail to make such delivery in the time required, you are authorized to borrow such securities as necessary to make delivery for the Customer's sale, and the Customer agrees to be responsible for any loss you may thereby sustain, or which you may sustain as a result of your inability to borrow such securities.

15. **Representations.** The Customer represents that the Customer is of majority age, that the Customer is not an employee of any exchange, or of any corporation of which any exchange owns a majority of the capital stock, or of a member of any exchange, or of a member firm or a member corporation registered on any exchange or of a bank, trust company, insurance company or of any corporation, firm or individual engaged in the business dealing either as broker or as principal in securities, bills of exchange, acceptances or other forms of commercial paper. If the Customer is a corporation, partnership, trust or other entity, the Customer represents that its governing instruments permit this Agreement, that all applicable persons have authorized this Agreement and that the Customer's signatory is authorized to bind the Customer. The Customer represents that the Customer shall comply with all applicable laws, rules and regulations in connection with the Customer's account. The Customer further represents that no one except the Customer has an interest in the account or accounts of the Customer with you.

16. **Joint Account.** If the Customer shall consist of more than one person, the Customer's obligations under this Agreement shall be joint and several. You may rely on transfer or other instructions from any one of the Customers in a joint account, and such instructions shall be binding on each of the Customers. You may deliver securities or other property to, and send confirmations; notices, statements and communications of every kind, to any one of the Customers, and such action shall be binding on each of the Customers. Notwithstanding the foregoing, you are authorized in your discretion to require joint action by the joint tenants with respect to any matter concerning the joint account, including but not limited to the giving or cancellation of orders and the withdrawal of money, securities, futures or commodities. In the case of Tenants by the Entirety accounts, joint action will be required for all matters concerning the joint account. Tenants by Entirety is not recognized in certain jurisdictions, and, where not expressly allowed, will not be a permitted designation of the account.

17. **Other Agreements.** The Customer agrees to be bound by the terms of your **New Account Application/Customer Account Agreement**. If the Customer trades any options, the Customer agrees to be bound by the terms of your **Option Agreement**. The Customer understands that copies of these agreements are available from you and, to the extent applicable, are incorporated by reference herein. The terms of these other agreements are in addition to the provisions of this Agreement and any other written agreements between you and the Customer.

18. **Data Not Guaranteed.** The Customer expressly agrees that any data or online reports is provided to the Customer without warranties of any kind, express or implied, including but not limited to, the implied warranties of merchantability, fitness of a particular purpose or noninfringement. The Customer acknowledges that the information contained in any reports provided by you is obtained from sources believed to be reliable but is not guaranteed as to its accuracy or completeness. Such information could include technical or other inaccuracies, errors or omissions. In no event shall you or any of your affiliates be liable to the Customer or any third party for the accuracy, timeliness, or completeness of any information made available to the Customer or for any decision made or taken by the Customer in reliance upon such information. In no event shall you or your affiliated entities be liable for any special incidental, indirect or consequential damages whatsoever, including, without limitation, those resulting from loss of use, data or profits, whether or not advised of the possibility of damages, and on any theory of liability, arising out of or in connection with the use of any reports provided by you or with the delay or inability to use such reports.

19. **Credit Check.** You are authorized, in your discretion, should you for any reason deem it necessary for your protection to request and obtain a consumer credit report for the Customer.

20. **Miscellaneous** If any provision of this Agreement is held to be unenforceable; it shall not affect any other provision of this Agreement. The headings of each section of this Agreement are descriptive only and do not modify or qualify any provision of this Agreement. This Agreement and its enforcement shall be governed by the laws of the state of Texas and shall cover individually and collectively all accounts which the Customer has previously opened, now has open or may reopen with you, or any introducing broker, and any and all previous, current and future transactions in such accounts. Except as provided in this Agreement, no provision of this Agreement may be altered, modified or amended unless in writing signed by your authorized representative. This Agreement and all provisions shall inure to the benefit of your successors, whether by merger, consolidation or otherwise, your assigns, the Customer's Introducing Broker, and all other persons specified in Paragraph 10. You shall not be liable for losses caused directly or indirectly by any events beyond your reasonable control, including without limitation, government restrictions, exchange or market rulings, suspension of trading or unusually heavy trading in securities, a general change in economic, political or financial conditions, war or strikes. You may transfer the accounts of the Customer to your successors and assigns. This Agreement shall be binding upon the heirs, executors, administrators, successors and assigns of the Customer.

21. **Account Protection.** As a member of the Securities Investor Protection Corporation (SIPC), funds are available to meet customer claims up to a ceiling of \$500,000, including a maximum of \$250,000 for cash claims. For additional information regarding SIPC coverage, including a brochure, please contact SIPC at (202) 371-08300 or visit www.sipc.org. Apex has purchased an additional insurance policy through a group of London Underwriters (with Lloyd's of London Syndicates as the Lead Underwriter) to supplement SIPC protection. This additional insurance policy becomes available to customers in the event that SIPC limits are exhausted and provides protection for securities and cash up to an aggregate of \$600 million. This is provided to pay amounts in addition to those returned in a SIPC liquidation. This additional insurance policy is limited to a combined return to any customer from a Trustee, SIPC and London Underwriters of \$150 million, including cash of up to \$2.15 million. Similar to SIPC protection, this additional insurance does not protect against a loss in the market value of securities.