PENSERRA SECURITIES LLC

BUSINESS CONTINUITY PLAN (BCP)

> VERSION: 1.8 LAST UPDATED: SEPTEMBER 1, 2014

BCP PLAN SIGN OFF

We have approved this Business Continuity Plan as reasonably designed to enable our firm to meet its obligations to customers in the event of a Significant Business Disruption.

George Madrigal, President/CEO

Date

Anthony Castelli, Chief Compliance Officer

Date

SUMMARY OF UPDATES

CREATION DATE	August 1, 2013
Last Updated	Monday September 1, 2014 14:50:23
Last Reviewed	September 4, 2014

BCP PLAN LOCATIONS

BCP Disclosure	Primary: (Shared file Server)	MMR\BCP\Penserra BCP Final.pdf
Statement	Secondary	http://www.penserra.com/disclosures {tbd}
	External	New York, NY Main Office
		Bay Shore, NY OSJ
		Chicago, IL OSJ
		Orinda, CA OSJ

FULL BCP PLan	STORAGE LOCATIONS	Primary: (Shared file Server)	MMR\BCP\Penserra BCP Final.pdf
		Secondary	http://www.penserra.com/bcp/bcpplan.doc {tbd}
		External	New York, NY Main Office
			Bay Shore, NY OSJ
			Chicago, IL OSJ
			Orinda, CA OSJ

SUPPORTING DOCUMENTATION

FIRM (GSEC)	Primary: (Shared file Server)	tbd
BCP PLAN Letter	Secondary	tbd
	External	tbd

UPDATE HISTORY:

DATE	UPDATE SESSION DETAILS	REVISED BY
11/28/07	Initial Plan Creation	G.Madrigal (CEO),
2/28/08	CCO change to Castelli, technology change, and remove futures language.	G. Madrigal (CEO)
12/01/09	OSJ addition, technology change, clearing party	A. Castelli (CCO)
12/31/10	Fixed Income additions and equity technology change	G. Madrigal (CEO)
10/05/2011	New OSJ location and contact numbers	A. Castelli (CCO)
1/27/2012	New OSJ location, contact numbers, new electronic communication storage vendor & clearing change	A. Castelli (CCO)
4/1/2012	Updated employees	A. Castelli (CCO)
8/1/2012	Updated employees and new OSJ	A. Castelli (CCO)
3/18/2013	Updated employees and OSJ	A. Castelli (CCO)
8/1/2013	Updated main office address	A. Castelli (CCO)
9/1/2014	Updated office addresses and employee lists	A. Castelli (CCO)

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I. <u>Emergency Contact Persons</u>

Our firm's two emergency contact persons are: George Madrigal (phone: 925.594.5001; email: <u>george.madrigal@penserra.com</u>) and Anthony Castelli (phone: 646.459.0581; email: <u>anthony.castelli@penserra.com</u>. These names will be updated in the event of a material change, and our Executive Representative will review them within 17 business days of the end of each quarter.

II. FIRM POLICY

Our firm's policy is to respond to a Significant Business Disruption (SBD) by safeguarding employees' lives and firm property, making a financial and operational assessment, quickly recovering and resuming operations, protecting all of the firm's books and records, and allowing our customers to transact business. In the event that we determine we are unable to continue our business, we will assure customers prompt access to their funds and securities.

A. SIGNIFICANT BUSINESS DISRUPTIONS (SBDS)

Our plan anticipates two kinds of SBDs, internal and external. Internal SBDs affect only our firm's ability to communicate and do business, such as a fire in our building. External SBDs prevent the operation of the securities markets or a number of firms, such as a terrorist attack, a city flood, or a wide-scale, regional disruption. Our response to an external SBD relies more heavily on other organizations and systems, especially on the capabilities of our clearing firm.

B. <u>APPROVAL AND EXECUTION AUTHORITY</u>

George Madrigal, a registered principal, is responsible for approving the plan and for conducting the required annual review. Anthony Castelli, Chief Compliance Officer, has the authority to execute this BCP.

C. PLAN LOCATION AND ACCESS

Our firm will maintain copies of its BCP plan and the annual reviews, and the changes that have been made to it for inspection. Electronic copies are available at a variety of locations (please refer to the BCP Plan Location section and related tables at the start of this document).

III. <u>BUSINESS DESCRIPTION</u>

Our firm conducts business primarily in equity and fixed income securities. Our firm is an introducing firm and does not perform any type of clearing function for itself or others. Furthermore, we do not hold customer funds or securities. We accept and enter orders. All transactions are sent to our clearing firm, which compares, clears and settles them. Our clearing firm also maintains our customer's accounts, can grant customers access to them, and delivers funds and securities. With limited exceptions, our firm services only institutional customers.

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Our clearing firm is Merrill Lynch Broadcort, 101 Hudson Street, Jersey City, NJ 07028. Their web site is at <u>http://gmi.ml.com/Broadcort/</u> and our contact person at the clearing firm is Ken Cultraro who can be reached at 646.743.0775 and ken.cultraro@baml.com.

IV. OFFICE LOCATIONS

Our Firm has four offices.

A. OFFICE LOCATION #1

Our Location #1 Office is located at 140 Broadway, 26th Floor, New York, NY 10005. Its main telephone number is 646.459.0588. Our employees may travel to that office by means of foot, car, subway, train, bus, and ferry boat. This is the main office and the firm engages in order taking and entry at this location.

B. OFFICE LOCATION #2

Our Location #2 Office is located at 4 Orinda Way Suite 100-A, Danville, CA 94563. Its main telephone number is 925.594.5000. Our employees may travel to that office by means of foot, car, subway, train and bus. This office is an Office of Supervisory Jurisdiction and order taking and entry takes place at this location.

C. OFFICE LOCATION #3

Our Location #3 is located at 160 Howells Rd. Suite 27, Bay Shore, NY 11706. Its main telephone number is 631.647.5322. Our employees may travel to that office by means of foot, car, subway, train and bus. This office is an Office of Supervisory Jurisdiction and order taking and entry takes place at this location.

D. OFFICE LOCATION #4

Our Location #4 is located at 10 South River Plaza Suite 871, Chicago, IL 60606. Its main telephone number is 773.938.8108. Our employees may travel to that office by means of foot, car, subway, train and bus. This office is an Office of Supervisory Jurisdiction and order taking and entry takes place at this location.

V. ALTERNATIVE PHYSICAL LOCATION(S) OF EMPLOYEES

In the event of an SBD, we will move our staff from affected offices to the closest of our unaffected office locations. If none of our other office locations is available to receive those staff or a temporary alternative site such as space at our clearing firm or one of our local clients, employees will be able to work from their homes, or any part of the country that is unaffected, as we have made sure that all critical order taking and entry applications and other mission critical

systems required for communication and conduct of business, are accessible via the Internet. We have also determined that ability can be maintained during long duration SBD's such as a flu pandemic.

VI. <u>CUSTOMERS' ACCESS TO FUNDS AND SECURITIES</u>

Our firm does not maintain custody of customers' funds or securities, which are maintained at our clearing firm, Merrill Lynch Broadcort. In the event of an internal or external SBD, if telephone service is available, our registered persons will take customer orders or instructions and contact our clearing firm on their behalf, and if our Web access is available, our firm will post on our Web site that customers may access their funds and securities by contacting Merrill Lynch Broadcort at 201.557.0700. The firm will make this information available to customers through its disclosure policy.

If SIPC determines that we are unable to meet our obligations to our customers or if our liabilities exceed our assets in violation of Securities Exchange Act Rule 15c3-1, SIPC may seek to appoint a trustee to disburse our assets to customers. We will assist SIPC and the trustee by providing our books and records identifying customer accounts subject to SIPC regulation.

VII. <u>DATA BACK-UP AND RECOVERY (HARD COPY AND</u> <u>ELECTRONIC)</u>

Our firm will maintain certain back-up hard copy books and records, as well as older hard copy books and records, at vendor to be determined. These records are expected to be in electronic and paper copies. Our Compliance Officer who can be reached at 646.459.0581 is responsible for the maintenance of these back-up books and records. These records will be stored in such a way as to be accessed and retrieved on short notice for a variety of reasons, including (but not limited to) audits, reviews, DR, etc.

Our electronic records will be backed up daily and, to external non-regional facilities. As a general policy, any new daily input generated or received through a Firm's computer (servers and individual user workstations), will be backed up daily each night after business hours. In addition, a full back-up of all data in the system will be performed every week (the backup week cycle is expected to start on Wednesdays) with one retention copy kept bi-monthly.

Our e-mail will be hosted by our anticipated IT services provider, Microsoft 365, in their fully redundant infrastructure (e.g., computers, disks, sites, etc.) and is backed up nightly.

A. BACKUP POLICY AND APPROACH

All backups are performed by hosted solutions using what is commonly referred to as a "disk-todisk" approach. The data is transferred from the local computer disks to redundant disks farms and servers at secure <u>offsite data vaulting centers</u> (hosted at industry leading hosting facilities such as IBM eHosting facilities, etc.), written to a replica hosted at another facility, and then tape copies are made and forwarded to yet another facility (a third one) for DR purposes. This approach has proven much more reliable than tape based approaches. In addition, restores (file, partials, etc.) can be initiated (even by the end-user depending on the access rights granted), by accessing a web site.

B. <u>Read-only systems (special case)</u>

The special case of "Read-only" systems (e.g. deprecated billing system leveraged for historical data only) are handled by "ghost" ing the machine and sending the image offsite to our records keeping facility.

C. TRADE DATA

In addition to the standard backups, trade data (orders, executions, etc.) generated internally is written to a DVD or CD WORM for archival purposes on a regular basis and sent to our records keeping facility for archival. In addition, our order management system/execution management system vendors, Newport, have been engaged to provide optical storage services for us with respect to all trade data generated or inputted into its systems.

D. <u>IM/E-MAIL ARCHIVING</u>

All e-mail and IM communications will be archived by Smarsh for communication monitoring. Smarsh is a Third-Party Download Provider (D3P) and the appropriate documentation has been filed with FINRA. The e-mail portion of this solution integrates directly with our e-mail infrastructure.

E. <u>DATA RECOVERY</u>

In the event of an internal or external SBD that causes the loss of our paper records, we will physically recover them from our back-up site. If our primary site is inoperable, we will continue operations from our back-up site or an alternate location. For the loss of electronic records, we will access the backup sets over the internet or request a tape extract or a portable storage device.

VIII. FINANCIAL AND OPERATIONAL ASSESSMENTS

A. **OPERATIONAL RISK**

In the event of an SBD, we will immediately identify what means will permit us to communicate with our customers, employees, critical business constituents, critical banks, critical counterparties, and regulators. Although the effects of an SBD will determine the means of alternative communication, the communications options we will employ will include email and home and mobile telephones. In addition, we will retrieve our key activity records as described in the section above, Data Back-Up and Recovery (Hard Copy and Electronic).

B. FINANCIAL AND CREDIT RISK

In the event of an SBD, we will determine the value and liquidity of our investments and other assets to evaluate our ability to continue to fund our operations and remain in capital compliance. We will contact our clearing firm, critical banks, and investors to apprise them of our financial status. If we determine that we may be unable to meet our obligations to those counter-parties or

otherwise continue to fund our operations, we will request additional financing from our bank or other credit sources to fulfill our obligations to our customers and clients. If we cannot remedy a capital deficiency, we will file appropriate notices with our regulators and immediately take appropriate steps, including alerting our customers and known counter-parties.

IX. Mission Critical Systems

Our firm's "mission critical systems" are those that ensure prompt and accurate processing of securities transactions, including order taking, entry, execution, comparison, allocation, clearance and settlement of securities transactions, the maintenance of customer accounts, access to customer accounts, and the delivery of funds and securities. More specifically, these systems include: Newport (equity order management, allocations, and trading), and Bloomberg.

We have primary responsibility for establishing and maintaining our business relationships with our customers and have sole responsibility for our mission critical functions of order taking, entry, execution and allocation. Our clearing firm provides, through contract, the comparison, clearance and settlement of securities transactions, the maintenance of customer accounts, access to customer accounts, and the delivery of funds and securities.

Our clearing firm contract provides that our clearing firm will maintain a business continuity plan and the capacity to execute that plan. Our clearing firm represents that it will advise us of any material changes to its plan that might affect our ability to maintain our business and will present us with an executive summary of its plan upon receipt of our Member approval. In the event our clearing firm executes its plan, it represents that it will notify us of such execution and provide us equal access to services as its other customers. If we reasonably determine that our clearing firm has not or cannot put its plan in place quickly enough to meet our needs, or is otherwise unable to provide access to such services, our clearing firm represents that it will assist us in seeking services from an alternative source.

Our clearing firms represent that they back up our records at a remote, out-of-region site. Our clearing firms represent that it operates a back-up operating facility in a geographically separate area with the capability to conduct the same volume of business as its primary site. Our clearing firms have also confirmed the effectiveness of its back-up arrangements to recover from a wide scale disruption by testing, and it has confirmed that it tests its back-up arrangements on a regular basis.

Recovery-time objectives provide concrete goals to plan for and test against. They are not, however, hard and fast deadlines that must be met in every emergency situation, and various external factors surrounding a disruption, such as time of day, scope of disruption, and status of critical infrastructure—particularly telecommunications—can affect actual recovery times. Nevertheless, we have been advised by our clearing firm that its objective is to restore its own operations and be able to complete existing transactions and accept new transactions and payments within four hours with respect to various events impacting their office buildings and within 24 hours with respect to more severe incidents such as a New York City wide disruption or a regional disruption.

A. Our Firm's Mission Critical Systems

Penserra Securities, LLC. - Confidential

1. Order Taking

Our firm expects to receive equity orders from customers via FIX messages to the Newport order management system, or via phone call to be entered into the system. All fixed income orders are received via phone call or emails. During an SBD, either internal or external, we will take orders via telephone and email depending on which methods are available and reliable. In addition, as communications permit, we will inform our customers when communications become available to tell them what alternatives they have to send their orders to us. Customers will be informed of alternatives by email, telephone or instant messaging. If necessary, we will advise our customers to place orders directly with our clearing firms.

2. Order Entry

Our firm expects to enter orders by recording them on paper and/or electronically and sending them to executing brokers. Each of these vendors has represented that their infrastructure is fully redundant as a result of employing a variety of carriers, technologies and power sources. Customers' trade data is replicated in real-time between their data centers, protecting valuable information in the event of an SBD related to their own operations.

In the event of an internal SBD, we will enter and send records to our clearing firm by the fastest alternative means available, which includes email. In the event of an external SBD, we will maintain the order in electronic or paper format, and deliver the order to the clearing firm by the fastest means available when it resumes operations. In addition, during an internal SBD, we may need to refer our customers to deal directly with our clearing firm for order entry.

The key equity trading applications used will be accessible via the Web which we plan on using in the case of an SBD. The applications are available at standard download locations (ftp site or web site) and, after the initial install, the only additional requirements will be the usernames and passwords.

3. Order Execution

We anticipate executing orders using our network of executing brokers and dealers. In the event of an internal or external SBD, our traders would continue to have access to these brokers via email or telephone and over the Internet.

4. Other Services Currently Provided to Customers

There are no additional services provided to Customers.

B. MISSION CRITICAL SYSTEMS PROVIDED BY OUR CLEARING FIRM

Our firm relies, by contract, on our clearing firm to provide order comparison, the maintenance of customer accounts, delivery of funds and securities, and access to customer accounts.

X. <u>ALTERNATE COMMUNICATIONS BETWEEN THE FIRM AND</u> <u>CUSTOMERS, EMPLOYEES, AND REGULATORS</u>

Penserra Securities, LLC. - Confidential

A. CUSTOMERS

We now communicate with our customers using the telephone, e-mail, instant messaging, fax, U.S. mail, and the FIX messaging protocol. In the event of an SBD, we will assess which means of communication are still available to us, and use the means closest in speed and form (written or oral) to the means that we have used in the past to communicate with the other party. For example, if we have communicated with a party by e-mail but the Internet is unavailable, we will call them on the telephone and follow up where a record is needed with paper copy in the U.S. mail.

B. <u>Employees</u>

We now communicate with our employees using the telephone, e-mail, and in person. In the event of an SBD, we will assess which means of communication are still available to us, and use the means closest in speed and form (written or oral) to the means that we have used in the past to communicate with the other party. We will also employ a call tree so that senior management can reach all employees quickly during an SBD. The call tree includes all staff home and office phone numbers. We have identified persons, noted below, who live near each other and may reach each other in person:

Caller	Call Recipients
George Madrigal	Anthony Castelli, Craig Alexander, Jason
	Valdez, Anthony Guaimano, Don Chisholm,
	Robert Goddard
Anthony Castelli	Compliance and Operations Departments
Craig Alexander	HR and Financial Departments
Jason Valdez	Equity Trading Department
Robert Goddard	Equity Sales Department
Anthony Guaimano	Orinda Fixed Income
Don Chisholm	New York Fixed Income

The person to invoke use of the call tree is: George Madrigal or Anthony Castelli.

C. REGULATORS

We are currently members of the following SROs: FINRA and MSRB. We will communicate with our regulators using the telephone, EFP, e-mail, fax, U.S. mail, and in person. In the event of an SBD, we will assess which means of communication are still available to us, and use the means closest in speed and form (written or oral) to the means that we have used in the past to communicate with the other party.

XI. <u>CRITICAL BUSINESS CONSTITUENTS, BANKS, AND COUNTER-</u> <u>PARTIES</u>

A. **BUSINESS CONSTITUENTS**

We will contact our critical business constituents (businesses with which we have an ongoing commercial relationship in support of our operating activities, such as vendors providing us critical services), and determined the extent to which we can continue our business relationship

with them in light of the internal or external SBD. We will quickly establish alternative arrangements if a business constituent can no longer provide the needed goods or services when we need them because of a SBD to them or our firm. [*or* we have entered into a supplemental contract with certain critical business constituents to provide such services.

B. <u>BANKS</u>

We have contacted our banks and lenders to determine if they can continue to provide the financing that we will need in light of the internal or external SBD. The firm maintains two banking relationships. The banks maintaining our operating account is: *First Republic 1400 Civic Drive Walnut Creek, CA 94596, representative Chris Smith and Citibank NA, 201 West 34th Street, New York, NY, 10001, representative Cesar Gomez.* The bank maintaining our Proprietary Account of Introducing Brokers/Dealers (PAIB account) is Merrill Lynch Broadcort located at 101 Hudson Street, Jersey City, NJ 07028. The contact person at that clearing firm is Ken Cultraro who can be reached at 201-557-4260 and ken.cultraro@baml.com. If our banks and other lenders are unable to provide the financing, we will seek alternative financing immediately from one of the major money center banks in the NYC area.

C. <u>COUNTER-PARTIES</u>

We will contact our critical counter-parties, such as other broker-dealers or institutional customers, to determine if we will be able to carry out our transactions with them in light of the internal or external SBD. Where the transactions cannot be completed, we will work with our clearing firm or contact those counter-parties directly to make alternative arrangements to complete those transactions as soon as possible.

XII. <u>Regulatory Reporting</u>

Our firm is subject to regulation by the SEC, FINRA, MSRB and various state securities units. We now file reports with our regulators using paper copies in the U.S. mail, and electronically using fax, e-mail, and the Internet. In the event of an SBD, we will check with the SEC, FINRA, MSRB and other regulators to determine which means of filing are still available to us, and use the means closest in speed and form (written or oral) to our previous filing method. In the event that we cannot contact our regulators, we will continue to file required reports using the communication means available to us.

XIII. DISCLOSURE OF BUSINESS CONTINUITY PLAN

We provide in writing a BCP disclosure statement to customers at account opening. We also post the disclosure statement on our Web site and mail it to customers upon request.

XIV. UPDATES AND ANNUAL REVIEW

Our firm will update this plan whenever we have a material change to our operations, structure, business or location or to those of our clearing firm. In addition, our firm will review this BCP annually, to modify it for any changes in our operations, structure, business, or location or those of our clearing firm.

A. PLAN DISTRIBUTION PROCEDURES:

Additional copies will be offsite with the BCP Plan executors.

B.

C.