March 6, 2018

TO: CTS and CQS Multicast Data Subscribers

SUBJECT: Quarterly CTS/CQS Failover Testing to Secondary Data Center: Reminder

Failover Testing

As previously <u>announced</u>, SIAC will be conducting quarterly data center failover testing to the secondary data center as well as Market-Wide Circuit Breaker (MWCB) testing with the CTS/CQS exchanges on **Saturday, March 24**th, **from 9:00 am - 11:30 am ET**. All CTS/CQS Multicast Data Subscribers are invited to participate in these quarterly tests to validate that their processing is as expected within their systems.

Remaining 2018 Quarterly Failover/MWCB Saturday Testing Schedule

2nd Quarter: 6/16/20183rd Quarter: 9/22/20184th Quarter: 12/8/2018

Market-Wide Circuit Breaker Testing

CTS and CQS Market-Wide Circuit Breaker Decline Level Status messages (Category M Type K) including the Level 1, Level 2 and Level 3 decline level values will be disseminated over the CTS and CQS multicast feeds. Market-Wide Circuit Breaker Status (Category M Type L) messages announcing Level 1 and Level 2 breaches will be disseminated randomly over the CTS and CQS multicast feeds. Once Market-Wide Circuit Breaker Decline Level Status messages are disseminated, listing exchanges are anticipated to generate CTS and CQS trading halt messages for all securities and not re-open for 15 minutes (Level 1 and Level 2). After 15 minutes have expired each for Level 1 and Level 2 breaches, listing exchanges are anticipated to resume trading in all securities. As the required functionality for a Level 3 breach is to halt and not resume all securities for the remainder of the trading day, Level 3 testing will not be conducted as part of this test.

Failover Test Details:

The failover to the secondary data center can occur at any time during the 9:00 am - 11:30 am ET time window to simulate an unexpected real-time event requiring a failover. Participating exchanges will continue to generate test data which will be disseminated over the production multicast lines sourced from the secondary data center.

Upon failover to the secondary data center CTS/CQS Data Subscribers will see:

System	CTS/CQS Failover Messaging Description
CTS/CQS	Category C Type L - Reset Block Sequence Number
CTS/CQS	Category C Type P - Disaster Recovery Data Center Activation
cqs	Category C Type O - FINRA Open
cqs	CQS quotes with zero prices/sizes for all securities
CTS/CQS	CTS trades and CQS quotes after failover from participating exchanges

Testing Coordination:

To coordinate testing, and to provide verbal or written confirmation of testing (as required of all Data Subscribers), please register as follows:

 E-mail your name, organization name, phone number to: <u>cqs-cts-opra@siac.com</u>

Indirect Data Subscribers must contact their service provider to coordinate testing.

Documentation:

Please reference the latest CTS and CQS Binary Output Specifications which may be obtained at: www.ctaplan.com under the 'Technical' option.