



## **Exchange Traded Fund (ETF)**

**CLIENT BUSINESS REQUIREMENTS:  
T0 SAME DAY SETTLING CREATE/REDEEM CYCLE WITH END OF  
DAY CASH TRUE-UP**

DECEMBER 29, 2023

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# INTRODUCING SAME DAY SETTLING T0 CREATE/REDEEM CYCLE

The issue of shortened settlement in the T+1 environment was raised at a high level as far back as December 2021 in the DTCC White Paper on Accelerating the Settlement cycle. However, the issue was initially geared to global ETF Create/Redeem and the Capital Expense of collateralization that would result from the mismatch in settlement cycles for ETFs with global underlying. In January 2023 at an NSCC ETF Industry Working Group, the top Authorized Participants (APs) described the issue in more detail, stating that the lack of shortened settlement in the upcoming T+1 cycle would be an issue for stock loan desks that frequently loan out large blocks of ETF shares. It is not an issue in the current T+2 settlement cycle as ETF shares are available for Stock Loan through T+1 shortened settlement. NSCC ETF Product Management encouraged the APs to raise the topic to SIFMA to gain momentum, and in mid Q1 2023, SIFMA created an ETF T+1 Committee. The issue became widespread, and it became quite clear that NSCC needed to develop a same day settling T0 Create/Redeem cycle.

NSCC worked with the industry to define the requirements for T0 Create/Redeem, which includes a true-up to end of day net asset value (NAV) as T0 Create/Redeem will be processed for NSCC eligible funds using the prior day NAV. The actual T0 cycle was defined at a May 04, 2023 NSCC ETF T0 Working Group, yet the guarantee of a collateral buffer and end of day true-up requirements were only recently defined by NSCC and the industry.

ETF Sponsors and their servicing ETF Agent Banks (Agents) required a collateral buffer that will cover expected change in NAV day-over-day and requested the collateral buffer to be guaranteed by NSCC. NSCC worked with some of the top sponsors (iShares, Vanguard, State Street Global Advisors, and JPMAM to mention a few) on detailed analysis to determine a percentage of the total NAV that will cover anticipated change in NAV. NSCC Risk has agreed to guarantee a maximum of 3% of the ETFs prior nights NAV, and Agents / Issuers have agreed to submit the buffer at the lowest percentage they believe will cover the change on the NAV when struck at the end of trade date.

NSCC has announced to the industry our commitment to develop the T0 cycle, targeting the end of May 2024, and will launch in conjunction with the T+1 launch. Due to excessive risk introduced by merging T0 code with T+1 code, NSCC will develop the cycle in a phased deployment with the T0 cycle. Submission and reporting of Cash Collateral Buffer and end of day Cash True-Up to be released in phase 1 (end of May 2024) and the actual true-up to end of day NAV through NSCC to be released in phase 2, the timing of which is still to be determined, yet will be as close as possible to the phase 1 release.

This client business requirements document is a Draft as NSCC has not yet fully groomed all developments. The Phase 2 section on Collateral Cash Adjustment (true-up) contains limited information, and it will be updated and redistributed, when finalized.

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## Note:

This Client BRD has been updated to reflect additional WARN and REJECT codes, industry best practices on redemptions and the NSCC Money Settlement code that will be used in phase 2 true-up automation. This document will remain in DRAFT state until reviewed with the industry during the January 10-11 Industry Working Group.

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## T0 Create/Redeem Cycle With Submission and Reporting of Cash Collateral Amount and End of Day True-up Collateral Cash Adjustment

For Phase 1, NSCC is targeting May 28, 2024 for the launch of the T0 Create/Redeem cycle with submission of a Cash Collateral Amount (buffer) and EOD Collateral Cash Adjustment (true-up).

Same day settlement (SDS) T0 Create/Redeem orders will be processed and sent to Universal Trade Capture (UTC) in near real-time and reported downstream for CNS®. CNS transactions received will be included in the current net settling position in periodic intervals throughout the day cycle on settlement date between approximately 4:30 A.M. to 1:30 P.M. Eastern Time and will be reported on Cycle 3 Consolidated Trade Summary (CTS) at 1:45 P.M.

### Dependencies

To launch ETF T0 to Production on or close to the T+1 launch on May 28, 2024, ETF Agents and Authorized Participants are required to:

- Complete and sign off on T+1 ETF testing by mid-November 2023 allowing for the T0 code to be merged with T+1 early in 2024.
- Develop the T0 cycle requirements described herein.
- Complete and sign off on T0 Client testing, which is targeted to begin in early April 2024 with sign off by May 09, 2024 – a narrow window for client testing.

The timelines for development and testing are subject to change if significant issues arise.

## T0 SDS Cycle – Create/Redeem File Input Changes

### ETF Agents

- T0 cycle will open at 12:30 A.M. ET with a hard cutoff at 1:30 P.M. ET.
- NSCC will stream trades resulting from T0 orders to Universal Trade Capture (UTC) in near real-time (NRT), beginning when UTC start of day opens.
- NSCC will allow submission of the [DATATRAK Production 11300/PSE 41300](#) file for T0 Create/Redeem up until the CNS SDS cutoff at approximately 1:29:59 P.M. ET.
- ETF Agents / Issuers are to submit the Enhanced Create/Redeem Instruction Data Input file.
- For ETF Agents only, submit the **DATATRAK Production 11300/PSE 41300** with Settlement Code 0 for SDS T0 orders in type 02 record Seq 10.

DATATRAK Production 11300/PSE 41300 Type 2–Instruction Record Record length=300 Required for all instructions.						
Seq	Description	Length	Start	Type	Comments	Required or Optional Field
10	Settlement Code (previously called Shortened Settlement Code)	1	58	A/N	<ul style="list-style-type: none"> <li>• Space = Default for Regular Way (Next day settlement = regular way)</li> <li>• 1 = Next Day Regular Way</li> <li>• <b>0 =T0 Same Day Settlement</b></li> <li>• 2 = Extended 2-day settlement</li> <li>• 3 = Three Day Settlement</li> <li>• 4 = Four Day Settlement</li> <li>• 5 = Five Day Settlement</li> </ul>	Required

T0 Creation Orders will be processed by NSCC against the prior night's end of day pricing which aligns to the prior night's NAV and will then be adjusted (Phase 2) to end of trade date NAV. ETF sponsors and their clearing ETF Agent bank will submit a collateral cash adjustment (buffer) to ensure the value of intraday delivery of ETF shares will not exceed the value of the ETF shares after end of day NAV is calculated.

- ETF will burst Create/Redeem orders using the latest PCF file submitted for that fund from the prior evening or in the Supplemental PCF cycle using the prior nights end of day CNS pricing.
- Supplemental PCF cycle will not change, yet to be used for a T0 order the Supplemental PCF must be submitted prior to the T0 order.
- To facilitate a collateralization buffer, Agents / Sponsors will submit a Cash Collateral Amount (new field) to NSCC on the T0 order file **DATATRAK Production 11300/PSE 41300**.
- Cash Collateral Amount will be added to the ETF Settlement Value. NSCC will guarantee the Cash Collateral Amount to a maximum of 3% of the prior night's NAV. ETF Sponsors have agreed they will submit this collateral buffer at the lowest percent expected dependent on the structure of the fund and current market conditions.
- ETF Agents / Issuers to submit new Cash Collateral Amount field on Enhanced Create/Redeem Instruction Data Input File (Agents only) **DATATRAK Production 11300/PSE 41300** on all order files received only in the T0 cycle between 12:30 A.M. ET and 1:30 P.M. ET for current Trade and Settlement Date.
- Cash Collateral Amount field is submitted by ETF Agents in Seq 20 on the Type 02 Instruction Record order input on the **DATATRAK Production 11300/PSE 41300** file.
- NSCC will generate the REJECT message code [583](#) on orders submitted with invalid characters in the Cash Collateral Amount field on Agent Receipt/Reject reports. Spaces and zeroes (00000) are valid values, and NSCC will process the order without the Cash Collateral Amount. This will result in a T0 order processed without a collateralized buffer amount.

## ETF Agent Receipt/Reject Reports

Report Name	Test	Production
Enhanced ETF End of Day Instruction Create/Redeem Receipt/Reject Report	02980098	<a href="#">02120098</a>
Enhanced ETF Intraday Create/Redeem Receipt/Reject Report	02981954	<a href="#">02261954</a>

- NSCC will divide the buffer amount submitted on the T0 order into the ETF value and will reject if the buffer is over 3%.

In the below example the Component Settlement Value + Cash Component = ETF Settlement Value (without buffer) \$593,382,350.70. divided by the Cash Collateral Amount (buffer) \$5,933,823.50 is equal to 1%. If the percentage is greater than 3, NSCC will generate REJECT message code [587](#) on the Receipt/Reject reports.

Print Image example of the Instruction Detail Blotter which will be distributed at 12:30 P.M. if submitted prior to 12:15 P.M. It includes the Cash Collateral Amount (buffer) and will be used to ensure the buffer does not exceed 3%.

The Collateral Cash Adjustment will not be distributed at 12:30 P.M. as this true-up amount has not yet been submitted.

NSCC PORTFOLIO:		ETF TRADING:	
SYMBOL: 608GK	ID: 000003608	SYMBOL: SPY	ISIN/CUSIP: US78462F1030
UNIT SIZE:	50,000	NAME:	SPDR S&P 500 ETF TR UNIT SER 1 STANDARD & POORS
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TRANSACTION ID: 23191000027X	CONTRA BROKER: 0000XXXX	EXEC BROKER:	TRANSACTION FEE: 3,000.00CR
TRANSACTION TIMESTAMP: 16:09:09.946		REVERSAL INDICATOR: NEW C/R INSTRUCTION	
ETF UNITS CREATED:	27		
TOTAL COMPONENT VALUE DEBITED:	593,021,058.300000		
CASH VALUE CREDITED:	361,292.400000		
Cash Collateral Amount	5,933,823.50000		
TOTAL ETF VALUE CREDITED:	599,316,174.20 (ETF Settlement Value reported with buffer)		
Collateral Cash Adjustment			

- NSCC will reject Regular Way or extended settlement orders in the **primary cycle** if submitted with a Cash Collateral Amount or Collateral Cash Adjustment field generating REJECT code (590 or 591) on the Receipt/Reject reports.

Log in to the Learning Center to access the full DATATRAK Production 11300/PSE 41300 format for this release from the [ETF Release](#) section.

DATATRAK Production 11300/PSE 41300 Type 2–Instruction Record Record length=300 Required for all instructions.						
Seq	Description	Length	Start	Type	Comments	Required or Optional Field
20	Cash Collateral Amount	12	112	N	New field for T0 submission for the collateral buffer amount not to exceed 3% of the prior night's net asset value (NAV). Required on T0 Create/Redeem orders submitted in the T0 cycle between 12:30 A.M. and 1:30 P.M. Eastern Time with the current day Trade and Settlement date.	Required for same day settlement (SDS) T0 orders. Spaces and zeroes (0000) are valid values.
21	Collateral Cash Adjustment	12	124	N	New field required in the Create/Redeem Primary cycle for all SDS T0 orders submitted in the T0 cycle. This true-up amount, calculated and submitted by ETF Agents / Sponsors, represents the difference between the Cash Collateral Amount and the Cash Amount Adjusted that aligns with the end of trade date NAV. The Collateral Cash Adjustment is reported on.	Required only for T0 orders in the Primary Create/Redeem cycle. ETF Agents should submit the same order details in the Primary cycle for a true-up on a T0 order and the same transaction ID must be submitted in a follow-up 11300 file with a true-up value.  NSCC does not fully edit previously reported fields, such as Cash Collateral Amount or the original Cash Component.
22	Collateral Cash Adjustment / Sign Indicator	1	136	A/N	New field required at the end of day submission of the Collateral Cash Adjustment field. Due to limited bytes on the Instruction Detail Blotter output file, the indicator also indicates the direction of the true-up amount .  + = Authorized Participant (AP) is the receiver and ETF Agent is the deliverer of the funds.  – = ETF Agent is the receiver and AP is the deliverer of the funds.	Required only for T0 orders, in the Primary Create/Redeem cycle, the same Transaction ID must be submitted in a follow-up 11300 file with a true-up value.

#### Notes:

NSCC has groomed all scenarios for submission of the Cash Collateral Amount (Buffer).



## Additional Warning and Reject Codes for the T0 Cycle

### Seq 20 Cash Collateral Amount

Spaces and zeroes are acceptable values for submission of the Cash Collateral Amount. NSCC generates the 592 WARN message code. NSCC processes the order yet no buffer amount is added. If submitted in error, it is the responsibility of the AP and ETF Agent to satisfy any requirements.

Message Code	Message Type	Record Type	Description
592	WARN	2	CASH COLLATERAL NOT SUBMITTED

### Seq 21 Collateral Cash Adjustment (True-up)

If submitted in the T0 cycle, NSCC generates the 589 WARN message code.

Message Code	Message Type	Record Type	Description
589	WARN	2	COLLATERAL CASH ADJ SUBMITTED IN INCORRECT CYCLE

### Seq 21 Collateral Cash Adjustment Sign Field (+-)

If the Sign field for Collateral Cash Adjustment is submitted in the T0 cycle, NSCC generates the 594 WARN message code.

Message Code	Message Type	Record Type	Description
594	WARN	2	SIGN ON COLLATERAL CASH ADJ SUBMITTED IN T0 CYCLE

### Seq 20 Cash Collateral Amount

In all instances where a non-numeric value with bad characters are submitted in this field, NSCC generates the 583 REJECT message code.

Message Code	Message Type	Record Type	Description
583	REJ	1	CASH COLLATERAL AMT NOT NUMERIC

## Additional Warning and Reject Codes Primary Cycle

### Seq 21 Collateral Cash Adjustment

If the Collateral Cash Adjustment is submitted as non-numeric with bad characters in Primary cycle, NSCC generates the 584 REJECT message code.

Message Code	Message Type	Record Type	Description
584	REJ	1	COLLATERAL CASH ADJ AMT NOT NUMERIC

If the Collateral Cash Adjustment is submitted in the T0 cycle, NSCC generates the 588 REJECT message code.

Message Code	Message Type	Record Type	Description
588	REJ	1	COLLATERAL CASH ADJ SUBMITTED IN T0 CYCLE

### Seq 22 Sign Field For Collateral Cash Adjustment

If an invalid character is submitted in the Seq 22 Sign field for Collateral Cash Adjustment, NSCC generates the 585 REJECT message code. Keep in mind that (+-) are the only valid signs for this field,

Message Code	Message Type	Record Type	Description
585	REJ	1	SIGN FOR COLLATERAL CASH ADJ AMT INVALID

If a sign field is submitted in either T0 Same Day Settlement (SDS) or Supplemental cycle NSCC generates the 593 WARN message code.

Message Code	Message Type	Record Type	Description
593	WARN	2	SIGN ON COLLATERAL CASH ADJ SUBMITTED ON NON T0 CYCLE

If the sign field is submitted in either the T0 Same Day Settling or Supplemental cycle, NSCC generates the 594 WARN message code.

Message Code	Message Type	Record Type	Description
594	WARN	2	SIGN ON COLLATERAL CASH ADJ SUBMITTED IN T0 CYCLE

If Collateral Cash Adjustment is submitted with non-numeric bad characters in T0 (SDS) or Supplemental cycle, NSCC generates the 596 WARN message code.

Message Code	Message Type	Record Type	Description
596	WARN	2	COLLATERAL CASH ADJ NOT NUMERIC AND SUBMITTED ON NON T0 CYCLE

A full list of reject and warning message codes will be distributed under separate cover. See Also: [ETF Message Codes for This Release](#) in this document and the [ETF Message Codes for the current release](#) available in the Learning Center.

## True-Up Adjustment at End of Day

### ETF Agents submission of true up amount (output details in reporting section below)

- ETF Agents / Sponsors to submit new Collateral Cash Adjustment field in the Primary cycle (2:00 P.M. - 8:45 P.M. ET). This reflects the updated timing when T+1 is launched.
- NSCC will generate a WARN message code 586 at the end of Primary Cycle if a Collateral Cash Adjustment is not submitted. The associated T0 order has already been processed, hence, the WARN. In cases where a true-up has not been submitted, it will be the responsibility of the ETF Agent and AP to reconcile. When NSCC launches Phase 2 automation of the true-up, an NSCC money settlement code will not be processed if the true-up is not submitted.
- NSCC will generate WARN message code 589 if a Collateral Cash Adjustment is submitted on a T0 order in the Supplemental Create/Redeem cycle (9:00 P.M. -11:30 P.M.). NSCC will also generate a 589 WARN if Collateral Cash Adjustment is submitted in the T0/Same Day Settling cycle. The Instruction Detail Blotter distributed at 9:00 P.M. has already reported this field as NOSUB. In this scenario, APs are responsible for contacting the ETF Agent and settling the true-up through Security Payment Orders (SPOs) until such time that NSCC launches the automated true-up planned in Phase 2.
- Collateral Cash Adjustment field to be submitted in the order input file Type 02 Record in Seq 21.

- ETF Agents / Sponsors to submit Collateral Cash Adjustment / Sign Indicator field in Type 02 Record Seq 22 on the order input file. This submission indicates that this is a follow-up 11300 file with a true-up value on an order that was processed in the T0 cycle submission. A plus sign (+) indicates the true-up adjustment will be paid to APs, while a minus sign (-) indicates the true-up will be paid to the ETF Agent.

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#### Notes

- Although ETF Agents will report the direction of true-up funds as a plus (+) or minus (-) on input, on the Machine Readable IDB output, the receiver of the true-up funds will be reported as C for a Credit or D for a Debit.
  - Based on analysis of NAV price changes over a 3-year period the collateral buffer is expected to cover change in NAV at end of trade and settlement date. Based on this analysis the true-up is expected to always be a credit to APs. However, NSCC will develop and allow for a true-up to be paid back to the Agent if the Cash Collateral Amount does not cover change in NAV, yet ETF Sponsors are encouraged to not offer T0 for a fund where the 3% maximum collateral buffer may not cover change in NAV.
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- NSCC will report all T0 orders received in the T0 cycle (12:30 A.M. ET to 12:15 P.M. ET) in the 12:30 P.M. distribution of the Instruction Detail Blotter (IDB) [AutoRoute Production 02261254/PSE 02981254](#).
  - PCF Supplemental cycle will end at 12:00 P.M., allowing all T0 orders received by 12:15 P.M. to be processed against the latest PCF received if late PCF revisions are submitted in the supplemental cycle.
  - IDB distribution will report the Cash Collateral Amount at 12:30 P.M. ET. During this distribution time, the Collateral Cash Adjustment will not include the true-up (Collateral Cash Adjustment field) since the end of Trade Date NAV is unknown at this time.
  - Any orders received in the T0 cycle after 12:15 P.M. ET will be reported only on the 9:00 P.M. ET distribution of the IDB.

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#### Note

For more information about reporting of Cash Collateral Amount, Collateral Cash Adjustment, and Collateral Cash Adjustment Debit / Credit Indicator, ETF Agents and APs should review the [Output and Reporting](#) section.

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- “As Of” Create/Redeem processing in the Intraday cycle will not change for T0. This process will align with the T+1 processing. NSCC will allow reversals to be submitted “As Of” up to **five days** to accommodate extended settlement orders that may need to be reversed. As of the prior trade date for Regular Way Settlement will settle the same day. As Of two through five days for Regular Way Settlement will be assigned the next available settlement date.
  - NSCC will send Trade-for-Trade (TFT-Non CNS eligible components) SPOs to Inventory Management System (IMS) intraday for Create/Redeem orders processed in the T0 SDS cycle. This is consistent with the current process of “As Of” reversals submitted in the intraday cycle.

#### ETF Agents / Authorized Participant / ETF Sponsors

- Redemptions** – The industry has stated that T0 (SDS) Create/Redeem orders are primarily for Creations, yet it is possible that redemption orders for reversals or exceptions may be submitted. Redemptions will follow all input and output requirements described herein.

- NSCC will allow and process redemptions in the T0 cycle based on industry requirement, however a negative buffer value on redemptions has not been built. Therefore, a buffer on a redemption order will not protect the issuer. On Redemptions, ETF Agents are debited cash for receipt of ETF shares which would be escalated if a buffer is submitted. On a straight redemption order (not submitted for reversal), ETF Agents have option to submit order with no buffer (spaces or zeroes) and then true-up with AP at end of day based on market fluctuation. The true-up does allow for a positive or negative value (+-) so the true-up can be a debit or credit for ETF Agent and AP.
- **Reversal/Correction Processing** – As per the current process, any order that is submitted in error can be reversed and corrected in the T0 cycle. To reverse a creation order, the ETF Agent is required to submit a redemption inclusive of the same buffer amount that was submitted on the creation it is meant to correct. The redemption will net out with the creation and no true-up will be required at the end of day. A corrected creation can be submitted with the proper buffer amount and that will be the only order that requires a true-up at the end of day.

## Output and Reporting

### ETF Agents and Authorized Participants

- NSCC will distribute the IDB for all T0 orders received before 12:15 P.M. on the 12:30 P.M. IDB distribution.
- 12:30 IDB distribution:
  - Labeled as cycle 03 on the DataTrak header.
  - Includes the collateral buffer amount in the Cash Collateral Amount field in Seq 33 in the Type 02 Record on the IDB.

For more information, see the [AutoRoute Production 02261254/PSE 02981254](#) output file.

- NSCC will distribute all T0 orders received in the T0 cycle (12:30 A.M. – 1:30 P.M.) on the 9:00 P.M. IDB distribution, including all T0 orders processed between 12:15 P.M. and 1:30 P.M. ET.
- Collateral Cash Adjustment Amount received by ETF Agents in the primary Create/Redeem cycle for processed T0 orders will be distributed in Seq 34 in the Type 02 Record on the 9:00 P.M. ET distribution of the IDB. The Collateral Cash Adjustment represents the true-up to end of day NAV.
- Collateral Cash Adjustment Debit /Credit Indicator will also be distributed during the 9:00 P.M. ET IDB.

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#### Note:

ETF Agents report this true-up adjustment indicator on order input with a plus (+) or a minus (-) sign as described above. On the Machine Readable IDB output this indicator is reported as a D for Debit or C for Credit.

ETF Agents submitting a plus (+) on true-up input file indicate that the AP is the receiver of the true-up funds and the ETF Agent is the deliverer of the funds. On the IDB MRO output, a plus (+) on input will be reported as a C for Credit, which indicates that the AP is the receiver of true-up funds.

ETF Agents submitting a minus (-) on true-up input file indicate that the ETF Agent is the receiver of the true-up funds and the AP is the deliverer of the funds. On the IDB MRO output, a minus (-) on input will be reported as a D for Debit, which indicates the ETF Agent is the receiver of the true-up funds.

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- For only T0 orders, in the Primary Create/Redeem cycle, Agents must submit the same **Transaction ID** in a follow-up file with a true-up value in the Type 02 Seq 2 Instruction Record of the Prod 11300/PSE41300 file. ETF Agents can recycle the T0 order file and include all fields previously submitted with the addition of the true-up amount in the Collateral Cash Adjustment field and (+-) sign field as described in this section.

#### Note


As described in the [ETF Agent input](#) section, ETF sponsors are discouraged from offering T0 if the buffer maximum of 3% cannot cover expected change in NAV.

If an ETF Agent does not submit an End of Day Instruction file containing the true up value, NSCC generates a WARN code to Agents on the End of Day Create/Redeem Receipt/Reject report. The true-up to NAV for that T0 order will need to be addressed by the ETF Agent and AP as the true-up amount will not have been reported.

- In cases when an ETF Agent does not submit the true-up Create/Redeem input file NSCC will distribute a message in the Collateral Cash Adjustment field, (NOSUB) to indicate that the true-up was **NOT SUBMITTED**. Until NSCC launches an automated true-up, APs and ETF Agents will need to agree the true-up amount ex-clearing and submit an SPO.
- If a true-up is submitted on an T0 order in the Supplemental Create/Redeem cycle (9 P.M. – 11:30 P.M.), NSCC will generate WARN [589](#) on the Receipt/Reject reports (ETF Agents only).

Here are the description of the new Instruction Detail Blotter fields for the Machine Readable and Print format. Log in to the Learning Center and access the full Prod 11300 format, along with the output 02261254 file, from the [ETF Release](#) section.

DATATRAK Production 11300/PSE 41300 Type 2–Instruction Record Record length=300 Required for all instructions.						
Seq	Description	Length	Start	Type	Comments	Required or Optional Field
1	Record Type	2	1	A/N	02 = Record Type 2 One per instruction.	Required
2	Transaction ID	12	3	N	ETF agent assigned transaction ID.  One per instruction. The same transaction ID should be used for each record of an instruction. <b>For only T0 orders, in the Primary Create/Redeem cycle, the same Transaction ID must be submitted in a follow-up 11300 file with a true-up value.</b>	Required
3	NSCC Portfolio ID	9	15	A/N	NSCC assigned Portfolio ID of the basket.	Required
4	Trade Date	8	24	N	CCYYMMDD – <b>(Trade Date or As/Of Date)</b>	Required

DATATRAK Production 11300/PSE 41300 Type 2–Instruction Record Record length=300 Required for all instructions.						
5	ETF Agent	8	32	N	NSCC assigned clearing number of the agent.	Required
6	Contra Clearing Firm	8	40	N	NSCC assigned clearing number of the broker dealer.	Required
7	Executing Broker ID	8	48	A/N	Executing Broker ID provided by the ETF agent.	Optional
8	Create Redeem Code	1	56	A/N	<ul style="list-style-type: none"> <li>• C = Create</li> <li>• R = Redeem</li> </ul>	Required
						
20	Cash Collateral Amount	12	112	N	New field for T0 submission for the collateral buffer amount not to exceed 3% of the prior night's net asset value (NAV). Required on T0 Create/Redeem orders submitted in the T0 cycle between 12:30 A.M. and 1:30 P.M. Eastern Time with the current day Trade and Settlement date.	Required for same day settlement (SDS) T0 orders.  Spaces and zeroes (0000) are valid values.
21	Collateral Cash Adjustment	12	124	N	New field required in the Create/Redeem Primary cycle for all SDS T0 orders submitted in the T0 cycle. This true-up amount, calculated and submitted by ETF Agents / Sponsors, represents the difference between the Cash Collateral Amount and the Cash Amount Adjusted that aligns with the end of trade date NAV. The Collateral Cash Adjustment is reported on.	Required only for T0 orders, in the Primary Create/Redeem cycle. ETF Agents should submit the same order details in the Primary cycle for a true-up on a T0 order and the same Transaction ID must be submitted in a follow-up 11300 file with a true-up value.  NSCC does not fully edit previously reported fields. such as Cash Collateral Amount or the original Cash Component.
22	Collateral Cash Adjustment / Sign Indicator	1	136	A/N	New field required at the end of day submission of the Collateral Cash Adjustment field. Due to limited bytes on the Instruction Detail Blotter output file, the indicator also indicates the direction of the true-up amount .  <ul style="list-style-type: none"> <li>• + = Authorized Participant (AP) is the receiver and ETF Agent is the deliverer of the funds.</li> <li>• – = ETF Agent is the receiver and AP is the deliverer of the funds.</li> </ul>	Required only for T0 orders, in the Primary Create/Redeem cycle, the same Transaction ID must be submitted in a follow-up 11300 file with a true-up value.

DATATRAK Production 11300/PSE 41300 Type 2-Instruction Record Record length=300 Required for all instructions.					
20	Future use	164	137		
END OF RECORD					

## Example Instruction Detail Blotter Reports at Different Times

**Instruction Detail Blotter Print Image Mockup reported at 12:30 P.M. ET**, which includes the buffer field Cash Collateral Amount.

NSCC PORTFOLIO:		ETF TRADING:	
SYMBOL: 608GK	ID: 000003608	SYMBOL: SPY	ISIN/CUSIP: US78462F1030
UNIT SIZE: 50,000		NAME: SPDR S&P 500 ETF TR	UNIT SER 1 STANDARD & POORS
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TRANSACTION ID: 23191000027X	CONTRA BROKER: 0000XXXX	EXEC BROKER:	TRANSACTION FEE: 3,000.00CR
TRANSACTION TIMESTAMP: 16:09:09.946		REVERSAL INDICATOR: NEW C/R INSTRUCTION	
ETF UNITS CREATED: 27			
TOTAL COMPONENT VALUE DEBITED:	593,021,058.300000		
CASH VALUE CREDITED:	361,292.400000		
Cash Collateral Amount	5,933,823.50000		
TOTAL ETF VALUE CREDITED:	599,316,174.20	(ETF Settlement Value reported with buffer)	

Collateral Cash Adjustment

**Instruction Detail Blotter Print Image Mockup reported at 9:00 P.M. ET**, which includes the true-up field Collateral Cash Adjustment and Collateral Cash Adjustment / Sign Indicator field.

NSCC PORTFOLIO:		ETF TRADING:	
SYMBOL: 608GK	ID: 000003608	SYMBOL: SPY	ISIN/CUSIP: US78462F1030
UNIT SIZE: 50,000		NAME: SPDR S&P 500 ETF TR	UNIT SER 1 STANDARD & POORS
-----			
TRANSACTION ID: 23191000027X	CONTRA BROKER: 0000XXXX	EXEC BROKER:	TRANSACTION FEE: 3,000.00CR
TRANSACTION TIMESTAMP: 16:09:09.946		REVERSAL INDICATOR: NEW C/R INSTRUCTION	



ETF UNITS CREATED:	27
TOTAL COMPONENT VALUE DEBITED:	593,021,058.300000
CASH VALUE CREDITED:	361,292.400000
Cash Collateral Amount	5,933,823.500000
TOTAL ETF VALUE CREDITED:	599,316,174.20
Collateral Cash Adjustment CREDITED	500,000

## Deposit Withdrawal at Custodian DWAC

- ETF Agents / Transfer Agents will have a short window to deposit ETF shares for the settlement of T0 Creation orders. ETF shares must be deposited and approved prior to final settlement at approximately 3:10 P.M.
- Negotiated Baskets in T0 SDS cycle – Based on industry feedback Negotiated Create/Redeem orders are out of scope. Current editing of Negotiated PCF will remain, Negotiated PCF submitted in T0 cycle will be provisionally accepted and orders submitted for Regular Way or Extended Settlement with the same transaction ID will be processed.
- Negotiated Create/Redeem orders submitted in the T0 cycle generates REJECT code 580 on the ETF Agent Receipt/Reject reports.
- NSCC can implement T0 Negotiated orders if and when the industry is ready.

## Phase 1 and Phase 2 True-Up

### ETF Agents / Authorized Participants

In Phase 1, as described above, ETF Agents will submit an end of day Create/Redeem Order file, [Production 11300/PSE41300](#), that will include a true-up amount (Collateral Cash Adjustment field) and Collateral Cash Adjustment Debit / Credit Indicator field. In most instances, APs will be responsible for submitting an SPO to claim the true-up value for each order. In rare instances, ETF Agents may also be responsible to claim funds if the Collateral buffer amount did not cover the change in NAV.

NSCC will coordinate additional discussions on standards for submission and approval of these SPOs until NSCC develops a solution.

In Phase 2, NSCC will develop and launch a process for the collection of true-up amounts for each order. In most industry discussions to date, SPOs were considered the likely method of generating a true-up. However, through analysis and design discussions NSCC will now develop a new NSCC money settlement code similar to the Code 54 and 55 transactions fees. Money Settlement codes are direct debits and credits to ETF Agent and AP accounts. This change in direction is expected to speed the launch of a true-up process to production and minimize ETF Agent and AP coding requirements. It also eliminates possible issues with the lack of the ETF Fund subaccount standing settlement instructions (SSI).

NSCC expects to have full Client Requirements documented for the new NSCC Money Settlement code in the coming weeks. Afterwards, this document will be updated and redistributed.

## Update

As stated above, NSCC automates the true-up process in a subsequent phase through NSCC Money Settlement. Currently, NSCC Money Settlement codes are used to pass transactions fees from ETF Agents to Authorized Participants (AP). NSCC Money Settlement **Code 54** is used for the Standard basket transaction fee and **Code 55** for the Custom basket transaction fees. For the existing codes, the transaction fee is always a debit to the AP and a credit to the ETF Agent.

For the true-up process, the new Money Settlement Code will be **56**. NSCC will process the Collateral Cash Adjustment field (true-up) submitted by the ETF Agents in the primary cycle and pass it to NSCC Money Settlement using Code 56. This code can appear as a credit or a debit to both ETF Agents and APs, depending on the sign field submitted. This is described in the [True-Up Adjustment at End of Day](#) section. All Money Settlement debits and credits appear in Settlement Web and are automatically processed against your clearing account. ETF Agents and APs should ensure they have access to the Settlement Web in the PSE/U test environment to ensure that they are ready when released for client testing.

The exact timeline for PSE/U client testing and release to production have yet to be determined and have several dependencies, as noted above.

## Backlog Enhancements / Minor Fixes

The following enhancements have been in NSCC's backlog and were expected to be released prior to T+1 before T0 took precedence. NSCC will develop these enhancements, as time allows, while developing T0. NSCC will update this document and announce PSE/U and Production launch dates as they become available.

- **Enhancement** – Carry Forward Cash Only Baskets (Carry Forward all Non Custom) Standard, Create, Redeem, and Cash Only.
- **Enhancement** – Create a new ID type (type 98 other) similar to ID type 99 Other, except with the new ID type NSCC will not mark the component as Cash in Lieu. This will allow Cash In Kind orders and may be used for future enhancements, specifically for Option Funds.
- **Bug Fix** – Custom Record 04 Mandatory on Negotiated PCF- NSCC will currently process Negotiated PCF / Orders without a Custom Record. Negotiated (and all custom baskets) are supposed to be published to the submitting ETF Agent and the AP named in 04 Record in near real-time.
- **Bug Fix** – Cash only with All components CIL, PCF format states a Space is any combination of Cash and Stock; however, NSCC is currently rejecting orders where the PCF has all underlying marked as CIL.

## ETF Message Codes for This Release

The following table shows the new message code for this release, along with the message type and descriptions. These message codes are available after the specific initiative is deployed and will be added to the current message codes available at [ETF Message Codes](#). We will continue to add message codes for this release, as needed.

Message Code	Message Type	Record Type	Field	File Type	Message Description
580	REJ	2	10	C/R	T0 ORDER IS NOT ALLOWED IN THE NEGOTIATED CYCLE
583	REJ	2	20	C/R	CASH COLLATERAL AMOUNT NOT NUMERIC
584	REJ	2	21	C/R	COLLATERAL CASH ADJUSTMENT NOT NUMERIC
585	REJ	2	22	C/R	SIGN ON COLLATERAL CASH ADJUSTMENT IS INVALID
586	WARN	2	21	C/R	COLLATERAL CASH ADJUSTMENT NOT SUBMITTED
587	REJ	2	20	C/R	CASH COLLATERAL IS ABOVE THE 3% THRESHOLD
588	REJ	2	21	C/R	COLLATERAL CASH ADJUSTMENT SUBMITTED IN THE T0 CYCLE
589	WARN	2	21	C/R	COLLATERAL CASH ADJUSTMENT SUBMITTED IN THE INCORRECT CYCLE
590	REJ	2	20	C/R	CASH COLLATERAL AMOUNT ALLOWED ONLY ON T0 ORDERS
591	REJ	2	21	C/R	COLLATERAL CASH ADJUSTMENT ALLOWED ONLY ON T0 ORDERS
592	WARN	2		C/R	CASH COLLATERAL NOT SUBMITTED
593	WARN	2		C/R	SIGN ON COLLATERAL CASH ADJ SUMMITTED ON NON T0 CYCLE
594	WARN	2		C/R	SIGN ON COLLATERAL CASH ADJ SUBMITTED IN T0 CYCLE
596	WARN	2		C/R	COLLATERAL CASH ADJ NOT NUMERIC AND SUBMITTED ON NON T0 CYCLE

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**Service:** Exchange Traded Fund (ETF)

**Title:** Client Business Requirements: T0 Same Day Settling Create/Redeem Cycle With End of Day Cash True-up

## For More Information

Email DTCC Learning at:

[DTCCLearning@dtcc.com](mailto:DTCCLearning@dtcc.com)

or visit us on the web at:

[www.dttclearning.com](http://www.dttclearning.com)

