

A#:	8162
P&S#	7737
DATE:	FEBRUARY 10, 2016
TO:	ALL PARTICIPANTS
ATTENTION:	MANAGING PARTNER/OFFICER; OPERATIONS PARTNER/OFFICER; MANAGER P&S DEPARTMENT; MANAGER DATA PROCESSING; CASHIER
FROM:	PRODUCT MANAGEMENT, EQUITIES CLEARANCE
SUBJECT:	ETF NEAR-REALTIME SUPPLEMENTAL FILE & ENHANCEMENTS DEPLOYMENT

As per the NSCC Important Notice A# 8129, P&S# 7704 issued December 7, 2015, "...effective Friday, February 12, 2016, NSCC will introduce a suite of industry-requested enhancements, including expanded capacity to deliver updated ETF PCF's during its current Supplemental processing period through the introduction of the ETF Near-Real-time Supplemental Portfolio Composition Output MRO."

As a reminder, testing is mandatory for firms that wish to configure subscription to the new ETF Near Real Time Supplemental MRO (AutoRoute Production 02262335 / PSE 02982335). NSCC Members wishing to subscribe and test should contact NSCC Support at 888-382-2721 and select option 5, then option 1.

Details of both optional and mandatory enhancements to be introduced on Friday, February 12, 2016 are included below. For general questions, please contact your DTCC Relationship Manager or the undersigned at kkilroy@dtc.com.

Kelly Kilroy, Equity Product Management



A Changes impacting all ETF Agents and Authorized Participants

I. Corrections to ETF Browser Data Labels – To improve consistency between the ETF Browser on the DTCC Portal and the AutoRoute 02261256 file output, the following changes will be reflected on the ETF Browser:

Current Data Label	New Data Label
on ETF Browser	on ETF Browser
Net Asset Value/IR	Net Asset Value / ETF
Dividends Outstanding/IR	Dividends Outstanding/ETF
Share Quantity	Creation Unit Size
Prior Day's Portfolio	Carried Forward Portfolio
NSCC Ptflo ID	NSCC Portfolio ID
Cmpnt Cn	Component Count
P/T	Portfolio Type
S?	Process Cycle

- II. Enhanced ETF Portfolio Subscription Options & Supplemental PCF Notification
 - a) ETF Agents and Authorized Participants will have the option to customize their subscriptions specifically to those portfolio baskets distributed via one or more individual ETF Agents. This industry-requested feature enables firms to automatically receive newly available ETF portfolios, inclusive of both standard and custom baskets, as they become available from ETF Agents selected by the subscriber. Firms interested in receiving a more targeted list of ETF portfolios in the ETF Portfolio Composition File or via the ETF Browser on Portal will no longer need to manually subscribe to newly available ETF's on an individual basis.
 - b) Subscribing firms have the option to enable email notifications to be sent whenever a Supplemental ETF portfolio basket becomes available. An enhanced notification message will be introduced detailing individual portfolios that have received updates. A hyperlink to the DTCC Portal will allow users to easily logon to the ETF Browser to view updated portfolios.

To access / view changes:

• Testing continues to be available in the Participant Services Environment (PSE) region.



B Changes Impacting ETF Agents Only

- III. Removal of the Final Transmission Indicator on theDataTrak 11301 Enhanced Consolidated Portfolio Composition Data Input File
 - a) Based on industry feedback, effective Friday, February 12, 2016, NSCC will remove the requirement that ETF Agents populate the Final Transmission indicator in the 99 record. See Appendix B.
 - i. This change will be reflected on the production AutoRoute 02260421 End of Day Portfolio Composition (Receipt/Reject) Print Image Report as well as the test version of the file AutoRoute 02980421. The final transmission field will be removed from the trailer of the report. See Appendix A.
 - ii. Error notifications and warnings currently generated by NSCC regarding failure to populate the final transmission indicator will cease upon implementation.

To access / view the enhanced format:

- Appendix A contains the End of Day Portfolio Composition (Receipt/Reject) Print Image Report (AutoRoute 02260421/02980421).
- Appendix B contains the updated layouts for the Consolidated PCF Input File Layout (DataTrak 11301 / 41301)

C Optional Changes for all subscribers of the ETF PCF

- IV. ETF Near-Real-time Supplemental Portfolio Composition Output MRO (AutoRoute 02262335 / PSE 02982335)
 - a) Requires that firms already be subscribed to receive the ETF Portfolio Composition File (AutoRoute 02261256) & have managed their ETF portfolio subscriptions via the ETF Browser on the DTCC Portal.

To access / view the enhanced format:

 Please see Appendix C for the updated record layout for the Enhanced Consolidated Portfolio Composition Output MRO (AutoRoute 02262335 / 02982335)



Appendix A
End of Day Portfolio Composition (Receipt/Reject) Print Image Report
- AutoRoute 02260421/02980421

Current ETF Portfolio Receipt/Reject Report (See Trailer Section)

		AL SECURITIES CLEARING COR CIPT / REJECT REPORT FOR T		PAGE:	1
ETF AGENT: NSCC DATE PROCESSED:	2015/10/01	FILE NSCC	ID: TIME PROCESSED: 11:35:44		
HEADER WARNING: H NSCC PRTFOL ID	EADER PROCESSING DATE IS NOT CO	JRRENT DATE STATU	us message		VSN NO
		ycce:			01 01
FINAL TRANSMISSION:	RECORDS REPORTED:	353 RECORDS PRO	OCESSED: 353	IN BALANCE	

Revised ETF Portfolio Receipt/Reject Report (See Trailer Section)

		HITIES CLEARING CORPORATION EFFORT FOR TRADE DATE	10/01/2015	PAGE:
ETF AGENT: NSCC DATE PROCESSED	0: 2015/10/01	FILE ID: NSCC TIME PROCE	SSED: 11:35:44	
HEADER WARNING: NSCC PRIFOL ID	HEADER PROCESSING DATE IS NOT CURRENT D DESCRIPTION)ATE STATUS	Message	SUB VS
(ACCEPT ACCEPT		01 (01 (
RECORDS REPORTED:	2 RECORD	S PROCESSED:	2 IN BALANCE	



<u>Appendix B – Consolidated PCF Input File Layout (DataTrak 11301/41301) (R5)</u> The Final Transmission Indicator field has been removed from record 99.

	Type 1 - Header Recor			Record	Record Length=250			
	Description	Length	Start	Туре	Comments	Required/Optional Field		
1	Record Type	2	1	A/N	01 = Record Type 1	Required		
2	File Description	25	3	A/N	"Portfolio Composition"	Optional		
3	ETF Agent	8	28	N	NSCC Member Number Right Justified with leading zeros	Required		
4	File Identifier	8	36	A/N	Input File Number	Optional		
5	Processing Date	8	44	N	CCYYMMDD	Required		
6	Processing Time	6	52	N	HHMMSS	Optional		
7	Future Use	192	58					
				END OF RI	ECORD			

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	Type 2 - Portfolio Header Record (required record type for all portfolios)				Record Length=250			
	Description	Len	Start	Туре	Comments	Required /Optional Field		
1	Record Type	2	1	A/N	02 = Record Type 2	Required		
2	NSCC Portfolio ID	9	3	A/N	NSCC assigned Portfolio ID of the basket	Required		
3	ETF Agent	8	12	N	NSCC Member Number Right Justified with leading zeros	Required		
4	Component Count	8	20	N	99,999,999	Required		
5	Estimated T-1 Cash Amount Per Creation Unit	14	28	N	999,999,999,999	Optional* *must be numeric		
6	Sign field for Estimated T-1 Cash Amount Per Creation Unit	1	42	A/N	"-" = Negative value Space= Positive value All other values treated as space (positive)	Optional		
7	Net Asset Value Per Creation Unit	17	43	N	999,999,999,999.99999	Optional* *must be numeric		
8	Sign field for Net Asset Value Per Creation Unit	1	60	A/N	"-" = Negative value Space= Positive value All other values treated as space (positive)	Optional		



_	pe 2 - Portfolio Heade quired record type for all port		ord		Record Length=250		
	Description	Len	Start	Туре	Comments	Required/Optional Field	
9	Estimated T-1 Cash Amount Per ETF	14	61	N	999,999,999,999.99	Optional* *must be numeric	
10	Sign field for Estimated T-1 Cash Amount Per ETF	1	75	A/N	"-" = Negative value Space= Positive value All other values treated as space (positive)	Optional	
11	Net Asset Value Per ETF	17	76	N	999,999,999,999.99999	Optional* *must be numeric	
12	Sign field for Net Asset Value Per ETF	1	93	A/N	"-" = Negative value Space= Positive value All other values treated as space (positive)	Optional	
13	Total Cash Amount Per Creation Unit	14	94	N	999,999,999,999.99	Optional* *must be numeric	



Appendix B - Consolidated PCF Input File Layout (DataTrak 11301/41301) (R5) - Continued

	pe 2 - Portfolio Heade	_	ord		Record Length=250		
	Description	Len	Start	Туре	Comments	Required/Optional Field	
14	Sign field for Total Cash Amount Per Creation Unit	1	108	A/N	"-" = Negative value Space= Positive value All other values treated as space (positive)	Optional	
15		12	109	N	999,999,999,999	Optional* *must be numeric	
16	Dividend Amount Per ETF on T-1	14	121	N	999,999,999,999.99	Optional* *must be numeric	
17	Sign field for Dividend Amount Per ETF on T-1	1	135	A/N	"-" = Negative value Space= Positive value All other values treated as space (positive)	Optional	
18	Estimated value of Cash- in-lieu components per Creation Unit	14	136	N	999,999,999,999.99	Optional* *must be numeric	
19	Cash Only Indicator	1	150	A/N	"Y" = Cash Only (create/redeem with Cash Only) space = No restrictions (any combination of cash or securities)	Optional	
20	·	3	151	N	Expressed in Basis Points	Optional* *must be numeric	
21	Total Asset Value of ETF Fund on T-1	17	154	N	999,999,999,999.99999	Optional* *must be numeric	
22	Future Use	80	171		Spaces		



	Type 3 – Detail Component Record (optional record type for Cash Only portfolios)				Record Length=250			
	Description	Len	Start	Туре	Comments	Required/ Optional Field *		
1	Record Type	2	1	A/N	03 = Record Type 3 (one per component)	Required		
3	NSCC Portfolio ID Component ID Code	9	12	A/N A/N	NSCC assigned Portfolio ID of the basket 01=CUSIP 02=SEDOL 03=ISIN 04=ISIN/SEDOL 05=Bloomberg 06=Reuters 07=ICE / NYSE Life 99=Other	Required		
4	Component ID	25	14	A/N	This is defined by the value in Component ID Code field	Required		
	o CUSIP	9	14	A/N	Identifies Domestic component			
	o SEDOL	7	14	A/N	Official SEDOL number			
	o ISIN	12	14	A/N	Identifies Foreign or Domestic Component			
	o ISIN/SEDOL	19	14	A/N	Combination ISIN/SEDOL *Recommended for non-US domiciled securities			

^{* &#}x27;Required' field within an optional record type needs to be populated only if that record type is submitted



·	Type 3 – Detail C				Record Length=250		
	Description Len		Len Start		Comments	Required /Optional Field *	
	- ISIN	12	14	A/N			
	- SEDOL	7	26	A/N			
	o All other types	25	14	A/N	Free form field identifying other type of asset class		
5	Component Quantity	13	39	N	Quantity of component per creation unit (par value for fixed income securities)	Required	
6	Sign Field for Component	1	52	A/N	"-" indicates negative value (short position) space = positive All other values treated as space (positive) ** Note: a component with negative quantity (short component), can only be created/redeemed for cash	Optional	
	Q oomers,	1		, , , , ,	ETF Agent provided settlement date for non-	- Optional	
7	External Settlement Date	8	53	N	DTC settling components	Optional	



	Type 3 - Detail (optional record type				Record Length=250		
	Description	Len	Start	Туре	Comments	Required/ Optional Field *	
8	New Security Indicator	1	61	A/N	N = New component in Portfolio space = not new	Optional	
9	Cash In Lieu Indicator	1	62	A/N	Y= ETF agent provided indicator for component to be substituted for cash in a create/redeem; space=No substitution Note: CIL is set to X by NSCC if one of the following conditions is met for create / redeem eligible Portfolios: - Component is not eligible in NSCC Security Master Database - Portfolio is a cash only portfolio	Optional	
10		60	63	A/N	ETF Agent defined description	Optional	
- 0	Component Description	100		7 9 1 1	211 Agent defined description	Optional	

^{* &#}x27;Required' field within an optional record type needs to be populated only if that record type is submitted



Ту	ype 4 - Custom Distribution Record (Required for Custom Portfolios Only) Record Length = 250									
	Description	Len	Start	Туре	Comments					
1	Record Type	2	1	A/N	04= Record Type 4 - Required					
2	NSCC Portfolio ID	9	3	A/N	NSCC assigned Portfolio ID of the basket - Required					
					Clearing Number of Authorized Participant to receive this file or LIST = distribution of AP's associated with Index Agent - Required					
3	Specified recipient	8	12	A/N						
4	Future Use	231	20		Spaces					
	END OF RECORD									

^{* &#}x27;Required' field within an optional record type needs to be populated only if that record type is submitted

Ty	Type 99 - Trailer Record – Required record type for all portfolios. Record Length = 250										
	Description	Len	Start	Туре	Comments						
1	Record Type	2	1	A/N	99 = Trailer Record - one per file						
2	Filler/Future Use**	1	3	A/N							
3	Record Count	13	4	N	Number of records in transmission (including trailer)						
4	Future Use	234	17		Spaces						
	END OF RECORD	•		•							

^{**} The Final Transmission Indicator field has been removed from record 99 (formerly character 3 in the Type 99 Trailer Record)



Appendix C – Near Real time Supplemental PCF MRO File Layout (AutoRoute 02262335 / PSE 02982335)

Тур	e 1 - Header Record					
	Description	Length	Start	Туре	Comments	
1	Record Type	2	1	A/N	01 = Header Record - one per file	
2	File Description	25	3	A/N	"Portfolio Composition"	
3	NSCC Member Number	8	28	N	NSCC Member Number – Right justified with leading zeroes.	
					Unique File Number. The first byte will identify whether the input file was from the	
4	File Identifier	8	36	A/N	Primary (P) or Supplemental (S) process. Examples: S0000001, P0000001, etc.	
5	NSCC Processing Date	8	44	N	CCYYMMDD	
6	NSCC Processing Time	6	52	N	HHMMSS	
7	Future Use	343	58			

END OF RECORD



Appendix C - Near Real time Supplemental PCF MRO File Layout (AutoRoute 02262335 / PSE 02982335) - Continued

Тур	Type 2 - Portfolio Header Record – Record Length = 400										
	Description	Length	Start	Туре	Comments						
	Description	Length	Start	1,00	02= Record Type 2						
1	Record Type	2	1	A/N	(one per Portfolio)						
2	ETF Trading Cusip	9	3	A/N	S&P Assigned						
3	ETF Trading ISIN	12	12	A/N							
4	NSCC Portfolio ID	9	24	A/N	NSCC assigned Portfolio ID of the basket From NSCC Security Master if found, otherwise ETF Agent supplied						
5	ETF Description	60	33	A/N	description is used						
6	Portfolio Trade Date	8	93	N	CCYYMMDD						
7	ETF Agent	8	101	N	NSCC Member Number						
8	Component Count	8	109	N	99,999,999						
9	Estimated T-1 Cash Amount Per Creation Unit	14	117	N	999,999,999,999						
10	Sign field for Estimated T-1 Cash Amount Per Creation Unit	1	131	A/N	"-" indicates negative value Space = Positive Value						
11	Net Asset Value Per Creation Unit	17	132	N	999,999,999,999999						
12	Sign field for Net Asset Value Per Creation Unit	1	149	A/N	"-" indicates negative value Space = Positive Value						
13	Estimated T-1 Cash Amount Per ETF	14	150	N	999,999,999,999						
14	Sign field for Estimated T-1 Cash Amount Per ETF	1	164	A/N	"-" indicates negative value Space = Positive Value						
15	Net Asset Value Per ETF	17	165	N	999,999,999,99999						
16	Sign field for Net Asset Value Per ETF	1	182	A/N	"-" indicates negative value Space = Positive Value						
17	Total Cash Amount Per Creation Unit	14	183	N	999,999,999,999						
18	Sign field for Total Cash Amount Per Creation Unit	1	197	A/N	"-" indicates negative value Space = Positive Value						



Appendix C - Near Real time Supplemental PCF MRO File Layout (AutoRoute 02262335 / PSE 02982335) - Continued

	•					
	Description	Length	Start	Туре	Comments	
19	Total Shares Outstanding Per ETF on T-1	12	198	N	999,999,999	
20	Dividend Amount Per ETF on T-1	14	210	N	999,999,999,999	
21	Sign field for Dividend Amount Per ETF on T-1	1	224	A/N	"-" indicates negative value Space = Positive Value	
21	Oli 1-1	1	224	A/IN	Space = Positive value	_
	Estimated Value of cash-in-lieu					
22	Components per Creation Unit	14	225	N	999,999,999,999	
22		,	220	A /NT	"Y" = Cash Only (create/redeem with Cash Only)	
23	Cash Only Indicator	3	239	A/N N	Space = No restrictions (any combination of cash or securities)	_
	ETF Expense Ratio on T-1	3	240	IN	Expressed in Basis Points	
25	Total Asset Value of ETF Fund on T-1	17	243	N	999,999,999,99999	
26	ETF Shares Per Create/Redeem Units	9	260	N	999,999,999 - from NSCC Security Master Database	
27	ETF Symbol	15	269	A/N	from NSCC Security Master Database	
28	CNS Eligibility Indicator	1	284	A/N	from NSCC Security Master Database	
					Y - Basket can be created or redeemed	
29	ETF Create Redeem Identifier	1	285	A/N	N- Basket cannot be created or redeemed	
					space - Today's portfolio being used	
30	Prior Day's Portfolio being used	1	286	A/N	Y - Prior day's portfolio being used	
					C = Custom	
31	Custom or Standard	1	287	A/N	S = Standard	
					D = Domestic	
32	Foreign or Domestic	1	288	A/N	F = Foreign	
					Y = New portfolio	
33	NSCC New Portfolio	1	289	A/N	Space = Existing Portfolio	
34	ETF Classification Code	6	290	A/N		
1						
35	Future Use	105	296			



Appendix C – Near Real time Supplemental PCF MRO File Layout (AutoRoute 02262335 / PSE 02982335) – Continued

Typ	e 3 - Detail Component Record – Reco	ord Length =	= 400			
	Description	Length	Start	Туре	Comments	
1	Record Type	2	1	A/N	03 = Record Type 3	
2	ETF Trading CUSIP	9	3	A/N	S&P Assigned	
3	ETF Trading ISIN	12	12	A/N		
4	NSCC Portfolio ID	9	24	A/N	NSCC assigned Portfolio ID of the basket	
5	Portfolio Trade Date	8	33	N	CCYYMMDD	
					01=CUSIP	
					02=SEDOL	
					03=ISIN	
					04=ISIN/SEDOL	
					05=Bloomberg	
					06 - Reuters	
_					07 - NYSE Life	
6	Component ID Code	2	41	A/N	99=Other	
7	Component ID	25	43	A/N	This is defined by the value in Component ID Code field	
	o CUSIP Number	9	43	A/N	Identifies Domestic component	
	o SEDOL	7	43	A/N	Official SEDOL number	
					Combination ISIN/ SEDOL Number	
	o ISIN/SEDOL	19	43	A/N	Recommended for non-US domiciled securities	
	- ISIN Number	12	43	A/N		
	- SEDOL Number	7	55	A/N		
	o All other types	25	43	A/N	Free form field identifying other type of asset class	
8	Component Quantity	13	68	N	Number of shares of this stock per creation unit	
					"-" indicates negative value (short position) space = positive	
9	Sign Field for Component Quantity	1	81	A/N	** Note: if any component is short, then it can only be created/redeemed for cash.	
					N = New component in Portfolio as per ETF Agent	
10	New Security Indicator	1	82	A/N	Space = not new	



Appendix C – Near Real time Supplemental PCF MRO File Layout (AutoRoute 02262335 / PSE 02982335)- Continued

	Description	Length	Start	Туре	Comments	
					Y= ETF agent provided indicator for component to be substituted for cash in a create/redeem; X= NSCC applied indicator for component to be substituted for cash in a create and redeem (per below mentioned rules) space = No substitution	
11	Cash In Lieu Indicator	1	83	A/N	Note: CIL is set to X if one of the following is met: - Component is not eligible in NSCC Security Master Database - Portfolio is a cash only portfolio.	
12	Component Symbol	15	84	A/N	Trading Symbol of Component	
13	Component WI Indicator	1	99		WI indicator of Domestic Component	
14	Component undergoing corporate action	1	100	A/N	Space = No corporate action M = Mandatory Corporate Action V = Voluntary Corporate Action	
15	Component NSCC eligibility indicator	1	101	A/N	Y = NSCC eligible N = Not NSCC eligible	
16	Component CNS Indicator	1	102	A/N	Y = CNS eligible N = Not CNS eligible	
17	External Settlement Date	8	103	N	ETF Agent provided settlement date for non-DTC settling components	
18	Component Description	60	111	A/N	Override input if found in NSCC Security Master Database	
19	Future Use	230	171	1	o territo impartir round in Proce Security Praesier Bandonse	



Appendix C – Near Real time Supplemental PCF MRO File Layout (AutoRoute 02262335 / PSE 02982335)- Continued

Тур	Type 99 - Trailer Record										
	Description	Length	Start	Type	Comments						
1	Record Type	2	1	A/N	99 = Trailer Record – one per file						
2	Processing Date	8	3	N	CCYYMMDD						
3	Primary Transmission or Supplement	1	11	A/N	P = Primary Transmission S = Supplemental Transmission						
	•										
4	Record Count	13	12	N	Number of records in transmission (including trailer)						
5	Future Use	376	25	A/N	Spaces						
	END OF RECORD										