



**REGULATORY SERVICES
DIVISION**

CFE TPH Audit Trail File Layout -

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I. Purpose

This document describes the CFE Regulation layout in which the audit-trail records of orders and quotes are to be produced during the course of an audit trail exam or an ad-hoc inquiry.

II. Production File Requirements

A. File Naming Convention

The following element sequence should be used when naming the production file(s):

<THP Name>.<Production Date>.<Connectivity Environment>.<Case Tracking Number>. ...

TPH Name	-- >>	CFE access port owner name
Production Date	-- >>	File creation date YYYY/MM/DD
Connectivity Environment	-- >>	Independent Software Vendor ("ISV")
Case Tracking Number	-- >>	Regulatory request tracking number as provided by CFER

Production file in access of the allowable maximum individual file size limit of 40 MB should be divided into multiple files, with each file containing additional descriptive information indicating its chronological sequence within the combined production dataset.

B. File Format

The first row of the production data file(s) should be allocated to the element's name. To preserve referential integrity a comma delimiter must be used for separation of the populated and unpopulated field. Additional columns may be added at the end of the file to add details regarding execution instructions and for internal use for the firm. Please note that all values within the production file must be converted from binary to human-readable text string. The content of this file should include the exchange reject messages. Furthermore, TPH may choose to omit any Carried Order/Quote Restatements messages and off-exchange trades from its audit trail file.

III. Audit Trail File Layout for **Order** Messages

The below requirements are for a post-production audit trail data report. This report should not be considered as complete for purposes of the TPH's adherence with CFTC regulations. Furthermore, this layout does not indicate how the audit trail data should be maintained, and is solely intended for the purpose for TPH's to provide CFE front-end audit trail records upon a request.

	Position	Field Name	FIX Protocol	Binary Protocol	Description	Found on Message Direction
Order	1	ClOrdId	Tag 11	ClOrdID	The Order ID value chosen by client. A key field required to be populated on every record of the produced AT data report, including rejected messages. Note: CFE only enforces the uniqueness of ClOrdID values among currently live orders, which includes long-lived GTC and GTD orders. However, it is strongly recommended that market participants keep their ClOrdID values unique. Required field to be populated on every related Order record.	TPH to CFE
	2	OrderID	Tag 37	OrderID	OrderID – as supplied by CFE on the associated order acknowledgement. A key field, except for the rejected messages, required to be populated on every related record of the produced AT data report. The OrderID is constant even in the event of multiple changes to a single order.	CFE to TPH
	3	CustomerOrderTime			Customer Order entry date-time in GMT. Time must be at least in millisecond precision and reflect an instance of order entry time by a non-direct connect customer. Ex: 4/16/2018 3:31:17.019900 PM, or 4/16/2018 15:31:17.019900. Populate this report's position with a calendar date that is not necessarily a business date as order entry may occur after the open and before the midnight indicating time of a not-direct connect customer order entry.	Cust to TPH
	4	TransactTime	Tag 60		TPH order entry date-time in GMT. Time must be at least in millisecond precision and reflect an instance of order entry by the TPH. Ex: 4/16/2018 3:31:17.019900 PM, or 4/16/2018 15:31:17.019900. Populate this report's position with a calendar date that is not necessarily a business date as order entry may occur after the open and before the midnight indicating time of the CFE port owner order entry.	TPH to CFE

Order	5	Symbol	Tag 55	Symbol/SymbolID	Product or CFE format symbol (case sensitive). If Product identifier (e.g., "VX", "VXT", "VU", "XBT" etc.) then Name MaturityMonth (200) AND MaturityDay (205) AND SecurityType (167) positions are required. Please note that the 6 character SymbolID is used then Name MaturityMonth (200) AND MaturityDay (205) AND SecurityType (167) are optional.	TPH to CFE
	6	SecurityType	Tag 167		Indicator of security type. "FUT" = Simple Futures instrument "MLEG" = Multi-leg/Spread Futures instrument. Please note that if 6 character SymbolID is used instead of the product identifier then SecurityType is optional.	TPH to CFE
	7	OrdType	Tag 40	OrderType	"1" = Market; "2" = Limit; "4" = Stop Limit;	TPH to CFE
	8	MaturityMonth	Tag 200	Maturity Date	Required if Product identifier (e.g., "VX", "VXT", and "VU", "XBT" etc.) is populated instead of SymbolID.	TPH to CFE
	9	MaturityDay	Tag 205	Maturity Date	Required if Product identifier (e.g., "VX", "VXT", and "VU", "XBT" etc.) is populated instead of SymbolID.	TPH to CFE
	10	OnBehalfOfCompanyID	Tag 115	ClearingFirm	Used to specify clearing information on messages to CFE. Must be an allowed Executing Firm ID (EFID).	TPH to CFE
	11	CMTANumber	Tag 439	CMTANumber	CMTA Number of the Firm that will clear the trade. Must be supplied for CMTA orders and left unspecified for non-CMTA orders.	TPH to CFE
	12	Price	Tag 44	Price	Limit Price. Price may be displayed as either decimal or multiple of 10000. Maybe negative to accommodate spread and TAS prices.	TPH to CFE
	13	StopPX	Tag 99	StopPX	The trigger price for Stop Limit orders. Only required if Tag 40 (OrdType) is equal to "4". Price may be displayed as either decimal or multiple of 10000.	TPH to CFE
	14	OrderQty	Tag 38	OrderQty	Number of contracts from 1 to 999,999.	TPH to CFE
15	Side	Tag 54	Side	"1" = Buy; "2" = Sell	TPH to CFE	

16	CTICode	Tag 9702	CtiCode	Valid values: 1, 2, 3, and 4 "1"= CTI 1: Transactions initiated and executed by an individual TPH for the TPH's own account, for an account the TPH controls, or for the account in which the TPH has an ownership or financial interest. "2" = CTI 2: Transactions executed for the proprietary account of a clearing TPH or non-clearing TPH. "3" = CTI 3: Transactions where an individual TPH or authorized trader executes for the personal account of another individual TPH, for an account the other individual TPH controls or for an account in which the other individual TPH has an ownership or financial interest. "4" = CTI 4: Any transaction not meeting the definition of CTI 1, 2 or 3.	TPH to CFE
17	OrderCapacity	Tag 47	Capacity	The capacity for the order; "C" = Customer "F" = Firm	TPH to CFE
18	OperatorId	Tag 25004	OperatorId	Identifier of the operator responsible for order message. Min length 3, max length 18 All values in ASCII range 33-126 are permissible.	TPH to CFE
19	Account	Tag 1	Account	This field will be reflected back on execution reports associated with this order and will be passed to the OCC in the Account data field. 16 characters or less (ASCII 33-126)	TPH to CFE
20	TimeInForce	Tag 59	TimeInForce	"0" = DAY (Default) (Expires at end of market day.) "1" = GTC (Order remains until cancelled.) "3" = IOC (Portion not filled immediately is cancelled. Market orders are implicitly IOC.) "4" = FOK (An IOC where the entire size must be filled, else the order will be cancelled back) "6" = GTD	TPH to CFE
21	ManualOrderIndicator	Tag 1028	ManualOrderIndicator	"Y" = Manual order entry; "N" = Automated order entry	TPH to CFE
22	RiskReset	Tag 7692	RiskReset	For more information please see the BOE and FIX CFE US Futures Risk Management Specifications.	TPH to CFE
23	PreventMatch	Tag 7928	PreventMatch	Indicator of prevent match settings.	TPH to CFE

	24	Special Instruction			<p>Unique designation of an algorithmically conceived or maintained order strategy. Must uniquely identify algorithmic strategies such as but not limited to the following order types:</p> <ul style="list-style-type: none"> · Market-to-Limit · Weighted Average · Ghost/Iceberg · Only released when the specified price is met or exceeded · Special orders with parent / child relationship <p>Please provide a glossary with the corresponding definition of the used code.</p>	These order instructions are at the trading platform level and are not necessarily communicated to the Exchange.
Cancel / Purge / Reject / Modify	25	CancelOrderInst	Tag 37; 41; 7700; 7695	OrigClOrdID / MassCancelInst	<p>Id of the order to cancel as supplied by CFE on the associated order acknowledgement. If Mass Cancel at least one character must be specified</p> <p>1st Character: Clearing Firm Filter "A" = No filtering by EFID is performed. "F" = All orders that were sent under the EFID specified in OnBehalfOfCompId (115) will be cancelled.</p> <p>2nd Character: Acknowledgement Style "M" = (Default) Individual Execution Reports are sent for each cancelled order. "S" = Single Execution Report sent once all cancels have been processed. Single Execution Report will contain MassCancelId (7695) and CancelledOrderCount (7696). MassCancelId (7695) must be specified or the Order Cancel Request will be rejected. "B" = Both individual Execution Reports and single summary Execution report. Also requires MassCancelId (7695) to be specified or the Order Cancel Request will be rejected.</p> <p>3rd Character: Lockout Instruction "N" = (Default) No lockout "L" = Lockout until corresponding Risk Reset received. Lockout can be used only with Clearing Firm Filter set to "F", otherwise the Order Cancel Request will be rejected. Lockout will apply to all new orders and cancel/replace orders for the EFID (and Symbol (55), if specified), regardless of other filtering in the MassCancelInst.</p> <p>4th Character: Instrument Type Filter "B" = (Default) Cancel both Simple and Spread orders "S" = Cancel Simple orders only "C" = Cancel Spread order only</p> <p>5th Character: "C" = (Default) Cancel GTC and GTD orders "P" = Don't cancel (preserve) GTC, GTD orders.</p>	TPH to CFE
	26	CancelModifyTime	Tag 60	TransactionTime	<p>GMT Date and Time cancel initiated/released. Time must be at least in millisecond precision. Ex: 4/16/2018 3:31:17.019900 PM, or 4/16/2018 15:31:17.019900</p> <p>Please populate this position with a calendar date which is not necessarily a business date as cancellation may occur after the open and before the midnight on the same trade date.</p>	CFE to TPH

	27	ReplacedOrderType	Tag 40	OrderType	Required if original OrdType(40) is changed. "1" = Market; "2" = Limit; "4" = Stop Limit; May replace Limit with Market and vice versa.	TPH to CFE
	28	NewReplacePrice	Tag 44	Price	Adjusted Limit Price. Price may be displayed as either decimal or multiple of 10000. Maybe negative to accommodate spread and TAS prices.	TPH to CFE
	29	NewStopPX	Tag 99	StopPX	Adjusted Stop Limit Price. Price may be displayed as either decimal or multiple of 10000. Maybe negative to accommodate spread and TAS prices.	TPH to CFE
	30	Reason	Tag 58	OrderRejectReason; ModifyRejectReason; CancelRejectReason; CancelReason;	Order reject/cancel reason.	CFE To TPH
	31	NewReplacedQty	Tag 38	OrderQty	Modified OrderQty of the current order.	TPH to CFE
Trade	32	ExecType	Tag 150	MessageType	FIX: "0" = Acknowledgement, "1" = Partial Fill, "2" = Fill, "3" = DoneForDay, "4" = Canceled, "5" = Replaced "8" = Rejected, "D" = Restated, "M" = Mass Cancel Complete; Binary: 0x25, 0x26, 0x27, 0x29, 0x2a, 0x2b, 0x2c, 0x2d, 0x48, 0x36	CFE to TPH
	33	ExecID	Tag 17; 527	ExecID	Day-unique ID of execution message. Will be zero for ExecTransType of Status (3).	CFE to TPH
	34	SendingTime	Tag 52	TransactionTime	Execution date-time in GMT. Time must be at least in millisecond precision and reflect execution date and time. Ex: 4/16/2018 3:31:17.019900 PM, or 4/16/2018 15:31:17.019900 Please populate this cell with a calendar date which is not necessarily a business date as execution may occur after the open and before the midnight on the same trade date.	CFE to TPH
	35	FillPrice	Tag 31; 21050	LastPX	Fill price. Price may be displayed as either decimal or multiple of 10000. Maybe negative to accommodate spread and TAS prices.	CFE to TPH
	36	TradeQty	Tag 32; 21051	LastShares	Last Sale Quantity.	CFE to TPH
	37	LeavesQty	Tag 151	LeavesQty	Quantity still open for further execution.	CFE to TPH
Trade Correction	38	ExecTransType	Tag 20	MessageType	"1" = Trade Cancel; "2" = Trade Correct	CFE to TPH
	39	ExecRefID	Tag 19	ExecRefID	Refers to the ExecID of the message being cancelled or corrected.	CFE to TPH

IV. Audit Trail File Layout for **Quote** Messages

The below requirements are for a post-production audit trail data report. This report should not be considered as complete for purposes of the TPH’s adherence with CFTC regulations. Furthermore, this layout does not dictate which record element or how the audit trail data should be maintained.

Position	Field Name / Binary Protocol	Description	Found on Message Direction
Bulk Message	1	QuoteID Client assigned id. Required field to be populated on every related Quote record. Required field to be populated on every related Quote record.	TPH to CFE
	2	QuoteEntryTime TPH order entry date-time in GMT as captured by the CFE port owner. Time stamp as captured by the TPH. Time must be at least in millisecond precision and reflect an instance of order entry by the TPH. Ex: 4/16/2018 3:31:17.019900 PM, or 4/16/2018 15:31:17.019900. Populate this report’s position with a calendar date that is not necessarily a business date as order entry may occur after the open and before the midnight on the same trade date.	TPH to CFE
	3	TransactionTime TPH order date-time in GMT. Time stamp as captured by the Exchange. Time must be at least in millisecond precision and reflect an instance of order entry by the TPH. Ex: 4/16/2018 3:31:17.019900 PM, or 4/16/2018 15:31:17.019900.	CFE to TPH
	4	ClearingFirm EFID that clears the trade. If left blank, the port attribute value of Default EFID is used.	TPH to CFE
	5	Account This field will be reflected back on execution reports associated with this order and will be passed to the OCC in the Account data field.	TPH to CFE
	6	CustomGroupID Used to group order for use in Purge functionality.	TPH to CFE
	7	Capacity The capacity for the order; “C” = Customer “F” = Firm	TPH to CFE

Bulk Message	8	CtiCode	Valid values: 1, 2, 3, and 4 “1”= CTI 1: Transactions initiated and executed by an individual TPH for the TPH’s own account, for an account the TPH controls, or for the account in which the TPH has an ownership or financial interest. “2” = CTI 2: Transactions executed for the proprietary account of a clearing TPH or non-clearing TPH. “3” = CTI 3: Transactions where an individual TPH or authorized trader executes for the personal account of another individual TPH, for an account the other individual TPH controls or for an account in which the other individual TPH has an ownership or financial interest. “4” = CTI 4: Any transaction not meeting the definition of CTI 1, 2 or 3.	TPH to CFE
	9	ManualOrderIndicator	“Y” = Manual order entry; “N” = Automated order entry	TPH to CFE
	10	OEOID	Identifier of the operator responsible for order message. Min length 3, max length 18.	TPH to CFE
	11	QuoteCnt	Number of repeating groups included in this quote.	TPH to CFE
	12	QuoteResult	Result of the quote request. Acceptance: A= New Quote L=Modified; loss of priority R=Modified; retains priority (size reduction) N=No change, matches existing quote D=New Quote, but may remove liquidity D=Modified, but may remove liquidity Cancellation: U=User cancelled (zero size/price requested) Rejection: P=Reject, can’t post F=Risk management firm or Custom Group ID level S=Rejected, symbol not found p=Rejected, invalid price s=Risk management product root level u=Rejected, other reason	TPH to CFE
Repeating Groups of ...	13	OrderID	Order ID assigned by the matching engine. Required field to be populated on every related Quote record.	CFE to TPH
	14	Symbol	CFE native identifier of a symbol	TPH to CFE
	15	Side	1= Buy; 2=Sell	TPH to CFE
	16	Price	Limit Price. 0 when cancelling existing quote	TPH to CFE
	17	OrderQty	Order Quantity	TPH to CFE
	...			

Cancel / Purge / Reject / Modify	18	TransactionTime	The time the event occurred in the CFE Matching Engine. (Not the time when a message was sent)	CFE to TPH
	19	QuoteRejectReason	Reason for rejection of an entire Quote Update message.	CFE to TPH
	20	CancelReason	Reason for the quote cancellation	CFE to TPH
	21	OrderID	Quote ID as assigned by the trade match system. Required field to be populated on every related Quote record.	CFE to TPH
	22	Symbol	CFE native identifier of a symbol	TPH to CFE
	23	Side	1= Buy; 2=Sell	TPH to CFE
	24	Price	Limit Price. 0 when cancelling existing quote	TPH to CFE
	25	OrderQty	Order Quantity	TPH to CFE
	26	NewOEID	Identifier of the operator responsible for order message. Min length 3, max length 18.	TPH to CFE
	27	ManualOrderIndicator	"Y" = Manual order entry; "N" = Automated order entry	TPH to CFE
Trade	28	TransactionTime	The time the event occurred in the CFE Matching Engine. (Not the time message was sent)	CFE to TPH
	29	ExecID	Trade execution ID	CFE to TPH
	30	LastShares	Executed Shares quantity	CFE to TPH
	31	LastPx	Fill Price	CFE to TPH
	32	LeavesQty	Quantity still open for execution	CFE to TPH
	33	Side	1=Buy; 2=Sell	CFE To TPH

* In the event of opting for a horizontal entry, the position of records 18 through 33 may vary depending on the number of individual quote messages representative in a bulk quote.