Circular no.: MCX/TRD/177/2018 May 7, 2018

Commencement of Crude Oil Options Contract with Crude Oil (100 Barrels) Futures as underlying

In terms of the provisions of the Rules, Bye-Laws and Business Rules of the Exchange, and in continuation to circular no. MCX/TRD/176/2018 dated May 7, 2018, the Members of the Exchange are notified as under:

Exchange shall be launching Crude Oil Options contract with Crude Oil (100 Barrels) futures as underlying. Accordingly Crude Oil Option contracts of 15 June 2018 and 17 July 2018 respectively will be available for trading with effect from Tuesday May 15, 2018. The Life cycle of the Crude Oil Option contracts is specified hereunder:

Particulars	Dates	Dates
Contract	Crude Oil Option 15 June 2018	Crude Oil Option 17 July 2018
Underlying Futures Contract	Crude Oil 19 June 2018	Crude Oil 19 July 2018
Contract Start Date	**May 15, 2018**	**May 15, 2018**
Option Contract Expiry Date	**June 15, 2018**	**July 17, 2018**
Sensitivity Report shall be provided on	June 11,June 12,June 13 & June 14, 2018 at End of Day	July 11, July 12,July 13 & July 16, 2018 at End of Day
Option Devolvement Intimation can be provided from	June 13, 2018 to June 15, 2018	July 13, 2018 to July 17, 2018
Option Devolvement Margin First Day	June 14, 2018 (from Begin of Day)	July 16, 2018 (from Begin of Day)
Option Devolvement Margin Second Day	June 15, 2018 (from Begin of Day)	July 17, 2018 (from Begin of Day)
First day of Trading after Option Positions Devolving into Futures Positions	June 18, 2018	July 18, 2018

The contract specification as approved by SEBI is provided in Annexure 1. A detailed note on product design is attached as Annexure 2.

Annexure 1 and Annexure 2 shall be binding on all the Members of the Exchange and constituents trading through them.

Members are requested to take note of the same.

Sanjiv Kapur
Asst. Vice President

Encl.: As above

Kindly contact Ashish Bhagtani on 022- 6649 4000 or send an email at customersupport@mcxindia.com for further clarification.

Annexure 1

Contract Specification for Crude Oil Options with Crude Oil (100 barrels) Futures as underlying

Symbol	CRUDEOIL
Underlying	Underlying shall be Crude Oil Futures contract traded on MCX
Description	Option on Crude Oil Futures
Option Type	European Call & Put Options
Contract Listing	Contracts will be available as per the Contract Launch Calendar
Contract Start Day	The next business day immediately after the expiry of the near month futures contracts
Expiry Day (Last Trading Day)	Two business days prior to the Expiry day of the underlying futures contract
Trading	
Trading Period	Mondays through Fridays
Trading Session	Monday to Friday: 10.00 a.m. to 11.30 / 11.55 p.m.* * based on US daylight saving time period
Trading Unit	One MCX Crude Oil futures contract
Underlying Quotation/ Base Value	Rs. Per barrel
Underlying Price Quote	Ex – Mumbai (excluding all taxes, levies and other expenses)
Strikes	7 In-the-money, 7 Out-of-the-money and 1 Near-the-money. (15 CE and 15 PE). The Exchange, at its discretion, may introduce additional strikes, if required.
Strike Price Intervals	Rs. 50
Base price	Base price shall be theoretical price on Black 76 option pricing model on the first day of the contract. On all other days, it shall be previous day's Daily Settlement Price of the contract.
Tick Size (Minimum Price Movement)	Rs. 0.10
Daily Price Limit	The upper and lower price band shall be determined based on statistical method using Black76 option pricing model and relaxed considering the movement in the underlying futures contract. In the event of freezing of price ranges even without a corresponding price relaxation in underlying futures, if deemed necessary, considering the volatility and other factors in the option contract, the Daily Price Limit shall be relaxed by the Exchange.
Margins	The Initial Margin shall be computed using SPAN (Standard Portfolio Analysis of Risk) software, which is a portfolio based margining system. To begin with, the various risk parameters shall be as under: A. Price Scan Range – 3.5 Standard Deviation (3.5 sigma) B. Volatility Scan Range – 5 % C. Short Option Minimum Margin – Minimum of 2.5% subject to Margin Period of Risk (MPOR) (i.e. 2.5% *√2 currently) D. Extreme Loss Margin – 1% (to be levied only on short option positions) E. Premium of buyer shall be blocked upfront on real time basis.

	The Margin Period of Risk (MPOR) shall be at least two days. Parameters would be reviewed and changed, if required
Premium	Premium of buyer shall be blocked upfront on real time basis.
Margining at client Level	Initial Margins shall be computed at the level of portfolio of individual clients comprising of the positions in futures and options contracts on each commodity
Real time computation	The margins shall be recomputed using SPAN at Begin of Day, 10.30 am, 12.30 pm, 1.30pm, 3.00pm, 5.00pm, 7.00pm, 8.30pm, 10.30pm and End of Day.
Mark to Market	The option positions shall be marked to market by deducting / adding the current market value of options positions (positive for long options and negative for short options) times the number of long / short options in the portfolio from / to the margin requirement. Mark to Market gains and losses would not be settled in Cash for Options Positions.
Risks pertaining to option that devolve into futures on expiry	a) In the initial phase, a sensitivity report shall be provided to members of the impending increase in margins at least 2 days in advance. The mechanism shall be reviewed and if deemed necessary, pre-expiry option margins shall be levied on the buy / sell / both positions during last few days before the expiry of option contract. b) The penalty for short collection / non collection due to increase in initial margins resulting from devolvement of options into futures shall not be levied for the first day.
Additional and/ or Special Margin	At the discretion of the Exchange when deemed necessary
Position Limits	
Maximum Allowable Open Position	Position limits for options would be separate from the position limits applicable on futures contracts. For individual clients: 9,60,000 barrels or 5% of the market wide open position, whichever is higher for all Crude Oil Options contracts combined together. For a member collectively for all clients: 96,00,000 barrels or 20% of the market wide open position, whichever is higher for all Crude Oil Options contracts combined together. Upon expiry of the options contract, after devolvement of options position into corresponding futures positions, open positions may exceed their permissible position limits applicable for future contracts. Such excess positions shall have to be reduced to the permissible position limits of futures contracts within two trading days.
Settlement	
Settlement of premium/Final Settlement	T+1 day
Mode of settlement	On expiry of options contract, the open position shall devolve into underlying futures position as follows:- • long call position shall devolve into long position in the underlying futures contract • long put position shall devolve into short position in the underlying futures contract

	• short call position shall devolve into short position in the underlying futures contract • short put position shall devolve into long position in the underlying futures contract All such devolved futures positions shall be opened at the strike price of the exercised options
Exercise Mechanism at expiry	All option contracts belonging to 'Close to the money' (CTM)* option series shall be exercised only on 'explicit instruction' for exercise by the long position holders of such contracts. All In the money (ITM) option contracts, except those belonging to 'CTM' option series, shall be exercised automatically, unless 'contrary instruction' has been given by long position holders of such contracts for not doing so. The ITM option contract holders and the CTM option series holders who have exercised their options by giving explicit instruction, shall receive the difference between the Settlement Price and Strike Price in Cash as per the settlement schedule. In the event contrary instruction are given by ITM option position holders (other than those belonging to CTM option series), the positions shall expire worthless. All CTM positions which are not exercised shall also expire worthless. All Out of the money (OTM) option contracts, except those belonging to 'CTM' option series, shall expire worthless. In the event the OTM position holders, which are in CTM option series, exercise their option positions, shall be required to pay and settle the difference between strike price and settlement price as per the settlement schedule. All devolved futures positions shall be considered to be opened at the strike price of the exercised options. * Option series having strike price closest to the Daily Settlement Price (DSP) of Futures shall be termed as At the Money (ATM) option series. This ATM option series along with two option series each having strike prices immediately above and below ATM shall be referred as 'Close to the money' (CTM) option series. In case the DSP is exactly midway between two strike prices, then immediate two option series having strike prices just above DSP and immediate two option series having strike prices just below DSP shall be referred as 'Close to the money' (CTM) option series.
Due Date Rate (Final Settlement Price)	Daily settlement price of underlying futures contract on the expiry day of options contract.

Contract Launch Calendar for Crude Oil Options contracts expiring during the year 2018

Options Contract Launch Months	Options Contract Expiry Months	Corresponding Futures Contract Expiry Months
March	15th June 2018	June 2018
April	17th July 2018	July 2018
May	16th August 2018	August 2018
June	17th September 2018	September 2018
July	17th October 2018	October 2018
August	14th November 2018	November 2018
September	14th December 2018	December 2018

Contract Launch Calendar for Crude Oil Options contracts expiring during the year 2019

Options Contract Launch Months	Options Contract Expiry Months*	Corresponding Futures Contract Expiry Months
October	January	January
November	February	February
December	March	March
January	April	April
February	May	May
March	June	June
April	July	July
May	August	August
June	September	September
July	October	October
August	November	November
September	December	December

* The expiry dates of the contracts shall be duly informed before the launch of the contracts

Annexure 2

Option Contract on Commodity Futures Contract – Product Design

1. **Option on Commodity Futures**:

   Option on Commodity Futures contract shall have the corresponding Commodity Futures contract as the underlying.

2. **Strikes:**

   Each Option expiry shall have minimum fifteen strikes available; viz. seven each for In the Money (ITM), seven Out of the Money (OTM) and one At the Money (ATM).

3. **Trading Parameters and Attributes:**

   The following trading parameters and order attributes are specified for Options trading:

   a. **Order type/Order book/Order attribute**

      - Regular lot order
      - Stop loss order
      - Immediate or cancel
      - Day
      - End of session
      - Good till cancelled
      - Good till date
      - Spread IOC & 2L/3L Order

   b. **Permitted lot size**

      The permitted lot size for the commodity derivatives options contracts shall be as per the respective contract specification.

   c. **Tick size for contracts**

      The tick size in respect of commodity derivatives options contracts shall be as per the respective contract specification.

   d. **Maximum Single Order Size**

      The maximum single order size shall be 100 lots

   e. **Turnover Limits**

      By default, the Buy and Sell Turnover Limits for Options shall be set as unlimited by the Exchange. However, the Members can reset these values as per their risk management requirement.

f. Base Price & operating ranges applicable to the contracts

Base price of the Options Contracts shall be theoretical price on Black76 option pricing model on the first day of the contract. On all other days, it shall be previous day's daily settlement price of the contract.

The minimum/ maximum operating price range for options contract will be statistical daily price range computed based on Black76 option pricing model.

The formula for calculation of theoretical base price and statistical operating range as per Black76 model formula is as follows:

The options price for a Call shall be computed as per the following formula:

C = Max [e ^ -rt {(F*N(d1) - K*N(d2)},Tick size]

and the price for a Put is:

P = Max [e ^ -rt {(K*N(-d2) - F*N(-d1)},Tick size]

and

d1 = [Log Normal {U/L Price (F) / Strike (K) } + {Volatility (V)^2/2 } * Time To Expiry (T)] / [Volatility (V) * sqrt {Time to Expiry }]

d2 = d1- Volatility * sqrt (Time to Expiry)
where:
F = Underlying Price
K = Strike Price
V = Volatility
T = Time to expiry (Days to Expiry / No. of days in Year)
R = Interest rate

4. Devolvement Style:

European Style options, which can be devolved only on the day of Expiry.

5. Devolvement Mechanism:

On expiry, following mechanism shall be adopted for devolvement of the options contracts:

a. Option series having strike price closest to the Daily Settlement Price (DSP) of Futures shall be termed as At the Money (ATM) option series.

This ATM option series and two option series having strike prices immediately above this ATM strike and two option series having strike prices immediately below this ATM strike shall be referred as 'Close to the money' (CTM) option series.

In case the DSP is exactly midway between two strike prices, then immediate two option series having strike prices just above DSP and immediate two option series having strike prices just below DSP shall be referred as 'Close to the money' (CTM) option series.

b. All option contracts belonging to ‘CTM’ option series shall be devolved only on ‘explicit instruction’ for devolvement by the long position holders of such contracts failing which they will expire worthless.

c. All In the money (ITM) option contracts, except those belonging to ‘CTM’ option series, shall be devolved automatically, unless ‘contrary instruction’ has been given by long position holders of such contracts for not doing so.

d. All Out of the money (OTM) option contracts, except those belonging to ‘CTM’ option series and devolved by the long position holders, shall expire worthless.

e. All devolved contracts within an option series shall be assigned to short positions in that series on a random basis.

f. On the option contract devolving in the underlying futures contract, the trading and settlement regulations of the underlying futures contract shall apply.

Examples are given below for identification of ITM, CTM, ATM and OTM strikes as per the underlying settlement price:

Strike Interval	50
U/L Settlement Price	4710

Strike Interval	50
U/L Settlement Price	4725

Strike Interval	50
U/L Settlement Price	4730

For Call	
Strike Available	**Strike Type**
4550	ITM
4600	CTM
4650	CTM
4700	ATM
4750	CTM
4800	CTM
4850	OTM
4900	OTM

For Call	
Strike Available	**Strike Type**
4550	ITM
4600	ITM
4650	CTM
4700	CTM
4750	CTM
4800	CTM
4850	OTM
4900	OTM

For Call	
Strike Available	**Strike Type**
4600	ITM
4650	CTM
4700	CTM
4750	ATM
4800	CTM
4850	CTM
4900	OTM
4950	OTM

For Put	
Strike Available	**Strike Type**
4550	OTM
4600	CTM
4650	CTM
4700	ATM
4750	CTM
4800	CTM
4850	ITM
4900	ITM

For Put	
Strike Available	**Strike Type**
4550	OTM
4600	OTM
4650	CTM
4700	CTM
4750	CTM
4800	CTM
4850	ITM
4900	ITM

For Put	
Strike Available	**Strike Type**
4600	OTM
4650	CTM
4700	CTM
4750	ATM
4800	CTM
4850	CTM
4900	ITM
4950	ITM

Strike	Devolvement Procedure	Effect
ITM (Other than CTM)	Positions shall devolve automatically	• Difference between settlement price and strike price shall be cash settled • Positions would get devolved into Futures contract
	ITM long position holder can give contrary instruction	• Expire worthless i.e. There will be no cash settlement • No positions will get devolved in to Futures contract
CTM – ITM / CTM – OTM	No position shall devolve automatically. An ‘explicit instruction’ shall be placed for exercise of Options.	If the option holder gives the ‘explicit instruction’ Then • Difference between settlement price and strike price shall be cash settled. In case of CTM- OTM position member have to pay the Difference between settlement price and strike price to the Exchange • Positions would get devolved into Futures contract Else • Expire worthless i.e. There will be no cash settlement • No positions will get devolved in to Futures contract
OTM (Other than CTM)	Positions shall not devolve into Futures	All position will expire worthless i.e. There will be no cash settlement

Submission of request for Devolvement of Positions –

The Members shall submit request for devolvement of positions request through manual entry or Bulk File Upload feature provided under MAT/ TWS➔ Ex/Dex/DI menu. Members may place multiple requests for devolvement of positions. The Exchange shall consider only the latest request placed by the member.

Members are requested to refer

1. Circular no. MCX/C&S/139/2018 dated 6th April 2018 - regarding timing for submission of request.

2. Circular no. MCX/TECH/092/2018 dated 15th March 2018 – relevant file format under sr.no. 5.61 to 5.63 for submission of request.

6. **Settlement Method**:

Daily Settlement:

The Options Premium settlement will be done on T+1 day basis.

Final Settlement:

On exercise, Options positions shall devolve into underlying Futures position as follows:-

- Long Call position shall devolve into long position in the underlying Futures contract
- Long Put position shall devolve into short position in the underlying Futures contract
- Short Call position shall devolve into short position in the underlying Futures contract
- Short Put position shall devolve into long position in the underlying Futures contract

On Expiry of options contract, all such devolved Futures positions shall be opened at the strike price of the exercised Options.

Cash settlement for difference between settlement price and strike price will be done on option devolvement day (contract expiry) + 1 day basis.

Sensitization Report / Devolvement Margin:

Sensitivity report shall be provided to members for sensitizing the impending increase in margins at least 2 days prior to the Options Expiry. Further, the Exchange shall levy devolvement margin beginning from at least one day prior to options expiry date. The Exchange shall review the mechanism and if deemed necessary shall increase/ decrease the number of days for which sensitivity report is being provided and the number of days for which devolvement margin is being levied. The exchange reserves the right to increase/ decrease the quantum of devolvement margin.

A. **Sensitivity Report**

- Sensitivity Report to be provided to the members would be an *End of Day* report.
- The report would be made available to members four days prior to the devolvement date of the options contract.
- The Report would be based on "*What if Scenario*", wherein all In the Money (ITM), including CTM option contracts (which are ITM) in the near month option contract, would be identified based on the respective day's settlement price, and converted into futures positions.

- The “what-if scenario” margins shall be calculated at client portfolio level, and grossed up at member level.
- The “what-if scenario” margins shall be computed using SPAN software.
- Spread charge, as currently applicable would be considered for expected margin computation i.e. benefit on spread positons shall be considered.
- If the member has given “Contrary Instruction” the same will not be considered for computation of expected margin in Sensitivity Report.
- A file shall be provided to members giving the information on existing margins, ‘what if’ scenario margins and incremental margins requirement.
- Profit element on expected Devolved Call and Put option positions shall be considered and will be reduced in the calculation of margin requirement. If the profit element exceeds the additional margin requirement due to devolvement of positions into futures, then the margin requirement shall be considered as zero for the purposes of Sensitivity Report.

B. Devolvement Margin

- Based on the outcome of the Sensitivity Report, the Exchange shall levy Devolvement margin.
- As stated, Devolvement Margin shall be computed at the end of the day, starting from the end of the second day prior to option devolvement date. Of the total Devolvement Margins arrived at based on the methodology specified for computation of margins in Sensitivity Report, Exchange shall levy one-fourth of the total Devolvement Margin computed on the day prior to the Option Devolvement Date. The said margin shall be made applicable for the entire next day (i.e. from the beginning of the day till the end of the day).
- At the end of the day on the day prior to option Devolvement Date, Devolvement Margin shall be re-computed considering the revised and updated Sensitivity Report and the Settlement price. On this day, one-half of the computed Devolvement Margin shall be made applicable on the next day.
- Devolvement Margin shall be in addition to all other applicable margins. In case of a situation where there is a margin reduction due to devolved position, no benefit would be passed on.
- In case of multiple contracts having different expiry dates but a common devolvement margin period, an average rate of the applicable margins numbers shall be applied, subject to a maximum margin rate of 50%.
- Exchange shall not consider devolvement margins for the purpose of client margin reporting.

7. Position Limits:

Position limits of options would be separate from position limits of futures contracts and numerical value for client level/member level limits shall be twice of corresponding numbers applicable for futures contracts.

Upon expiry of the options contract, after devolvement of options position into corresponding futures positions, open positions may exceed their permissible position limits applicable for future contracts. Such excess positions shall have to be reduced to the permissible position limits of futures contracts within two trading days.

The excess position limits would be permitted for only those clients, who had exceeded position limits at the time of devolvement.

8. Margins:

Risk management shall be managed with Standard Portfolio Analysis of Risk (SPAN*). The initial margin shall be imposed at the level of portfolio of individual client comprising of his positions in futures and options contracts on each commodity. Margins shall be adequate to cover 99% VaR (Value at Risk) and Margin Period of Risk (MPOR) shall be two days.

For buyer of the option, buy premium shall be charged as margins and blocked from the collaterals. On completion of settlement, the premium blocked shall be released.

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Calendar Spread Charge:

The margin on calendar spread shall be calculated on the basis of delta of the portfolio consisting of futures and options contracts in each month. The Calendar Spread charge shall be 25% on both the legs of the position.

Net Option Value

Net Option Value is computed as the difference between the long option positions and the short option positions, valued at the last available closing price and shall be updated intraday at the current market value of the relevant option contracts at the time of generation of risk parameters. Thus, mark to market gains and losses shall not be settled in cash for options positions.