ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

September 6, 2007

Marathon Petroleum Company LLC)	OCE SOFFICE
Rockford Terminal)	SEP 1 2007
)	STATE OF ILLINOIS
Petitioner,)	Polition Control Board
v.)	IEPA − 08- 120 4
II I INICIS ENIVIDONIMENITAT)	(Provisional Variance-Water)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,)	
Respondent.	.)	

Re:

Provisional Variance From Limits for Total Suspended Solids (TSS) and Total Iron from NPDES Permit IL0062782

Dear Mr. Gasser:

The Illinois Environmental Protection Agency (Agency) has completed its technical review of the attached request for an extension of a provisional variance, dated August, 23, 2007 (Attachment A) submitted by Marathon Petroleum Company LLC (Marathon) for its Rockford Terminal. Marathon is requesting additional time to dewater a retention pond at its Rockford Terminal in order repair dike walls, and dredge a buildup of silt and sediment to assure compliance with the effluent limits of NPDES permit IL0067282 (Attachment B). Because Marathon's first provisional variance (IEPA 08-10, Provisional Variance-Water) ended on August 15, 2007, the Agency must treat the current request as a request for a second provisional variance rather than an extension of the first.

Based on its review, the Agency GRANTS the provisional variance subject to the specific conditions set forth below.

Background

Marathon owns and operates a terminal station at 7312 Cunningham Road in Rockford, Illinois (Winnebago County). A retention pond that collects both stormwater from the tank farm area and hydrostatic test water needs to be repaired and cleaned. According to the NPDES permit application submitted by Marathon, discharge from this retention

pond (designated as Outfall 001 in NPDES permit IL0062782) occurs infrequently and is dependent upon precipitation and frequency of hydrostatic tests. A discharge occurs approximately four times a year during heavy rainfall events and hydrostatic testing of the tanks occurs once every three to five years.

Marathon estimates that it will need to discharge 50,000 gallons of water to an unnamed tributary of South Fork Kent Creek during the variance period in order to complete the cleaning and repair work. Marathon will use a filter bag system to reduce the TSS prior to discharge.

The Agency granted Marathon granted a provisional variance on July 10, 2007 (IEPA 08-10, Provisional Variance-Water,) to dewater the detention basin for cleaning and repair. Due to several extreme rainfall events, however, Marathon was unable to finish the work. This variance request will allow Marathon the necessary time to complete all of the work that was authorized in IEPA 08-10.

Relief Requested

Marathon seeks a provisional variance from the TSS and Iron limits for Outfall 001 during the period of time that cleaning and repair work are ongoing. NPDES permit limits for TSS and Iron at Outfall 001 are:

Parameter	Monthly Avg. (mg/l)	Daily Max. (mg/l)
TSS	15	30
Total Iron	2	4

Marathon is requesting that during the term of the provisional variance it be allowed to discharge up to 60 mg/l TSS and 8 mg/l Total Iron.

Agency Determinations

The Agency has reviewed the requested provisional variance and has concluded the following:

- 1. The environmental impact from the requested relief is predicted to be minimal;
- 2. No reasonable alternatives appear available;
- 3. No public water supplies should be affected;
- 4. No federal regulations will preclude the granting of this request; and
- 5. Marathon will face an arbitrary and unreasonable hardship if the request is not granted.

Conditions

The Agency hereby GRANTS Marathon Petroleum Company, LLC a provisional variance at its Rockford Terminal from the TSS and Total Iron limits for Outfall 001 of NPDES Permit IL0062782, subject to the following conditions:

- A. The provisional variance shall begin on September 10, 2007, and shall end no later than October 1, 2007.
- B. Marathon shall operate its system to produce the best effluent possible, and at no time shall the effluent from Outfall 001 exceed the limits of 60 mg/l for TSS, and 8 mg/l for Total Iron. All other requirements of NPDES permit IL0062782 will be maintained during the variance period.
- C. Marathon shall notify Roger Callaway of the Agency by telephone at 217/782-9720 when the retention pond is taken out of service and again when it is returned to service. Written confirmation of each notice shall be sent within five days to the following address:

Illinois Environmental Protection Agency Bureau of Water - Water Pollution Control Attention: Roger Callaway 1021 North Grand Avenue East, MC #19 Springfield, Illinois 62794-9276

G. Marathon shall sign a certificate of acceptance of this provisional variance and forward that certificate to Roger Callaway at the address indicated above within one day of the date of this order. The certification should take the following form:

I (We)and conditions of	, hereby acce the provisionaldated	pt and agree to be variance granted	bound by a by the Age	ll terms ency in
Petitioner				
Authorized Agent	·····			
Title				

D	at	e

Marathon shall continue to monitor and maintain compliance with all other parameters and conditions specified in its NPDES Permit No. IL0062782.

Conclusion

The Agency grants this provisional variance in accordance with its authority contained in Sections 35(b), 36 (c), and 37(b) of the Illinois Environmental Protection Act (415 ILCS 5/35(b), 36(c), and 37(b) (2004). The decision to grant this provisional variance is not intended to address compliance with any other applicable laws or regulations.

Sincerely,

Robert A. Messina Chief Legal Counsel

cc: Marcia Willhite

Roger Callaway Connie Tonsor

Vera Herst

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IEPA

Terminal, Transport & Marine Health, Environment, Safety & Security

Marathon Petroleum Company LLC

1304 Olin Avenue Indianapolis, IN 46222 Telephone 317/244-9551 FAX 317/244-9556

SENT VIA OVERNIGHT MAIL

August 23, 2007

Illinois Environmental Protection Agency Bureau of Water – CAS 19 Attn: Roger Callaway 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276

SUBJECT:

APPLICATION FOR EXTENSION - PROVISIONAL VARIANCE

RE:

NPDES Permit No. IL0062782

Marathon Petroleum Company LLC – Rockford Terminal 7312 Cunningham Road Rockford, IL 61102

Mr. Callaway:

Marathon Petroleum Company LLC (MPC) respectfully submits for Illinois EPA's review this application for an extension to the provisional variance IEPA – 08-10 issued by Illinois EPA on July 26, 2007. The pond was de-watered initially on August 1, 2007. Since then several rainstorms have occurred and accumulated in the pond. There will likely be a need to de-water the pond again. This application follows the requirements of 35 IAC 180.202 (b) below:

- 1) MPC requests variance from NPDES Permit IL0062782, Item 1 (Effluent Limitations and Monitoring): Total Suspended Solids (TSS) and Total Iron. The TSS limits are 30 mg/L maximum and 15 mg/L average, while the Total Iron limits are 4 mg/L maximum and 2 mg/L average.
- 2) MPC plans on cleaning the retention pond at the Rockford Terminal, due to buildup of silt and sediment in the pond, as well as visible erosion of the dike walls. In order to dredge the bottom of the pond, the currently retained water in the pond needs to be removed. MPC is requesting the provisional variance to pump the water out of the pond into the existing receiving waters of the State, with a less restrictive effluent limitation on TSS.
- 3) See #2 above. Description of pond: The retention pond holds storm water collected in tank dikes throughout the terminal. When the pond's water level becomes high enough, the water is checked for sheen, pre-sampled for pH, and then discharged through Outfall

- 001. MPC will have a third-party contractor perform the pumping of water, dredging, and reshaping of the pond and dike wall.
- 4) It is difficult to estimate the volume of water to be discharged at the time of the expected work, but MPC estimates 50,000 gallons of water will need to be pumped out of the pond. MPC feels the discharge will be below the Oil and Grease limit of 30 mg/L and have a pH between 6 and 9 s.u. Due to a discharge on March 14, 2006 in which the permitted limits of Total Iron average and Total Suspended Solids maximum were exceeded, MPC requests this provisional variance allowing discharge of water above the limits for Total Iron and TSS for the described one-time event. MPC feels a Total Iron limit of 8 mg/L maximum and TSS limit of 60 mg/L maximum for the provisional variance will be met (conservative estimates; MPC's goal is to be much lower for both parameters).

The receiving waterway for discharges from the retention pond at the Rockford Terminal is an Unnamed Tributary to South Fork Kent Creek.

- 5) N/A
- 6) MPC anticipates any environmental impacts would be very minimal. The discharge may result in a higher level of TSS than normal, but MPC will utilize filter bags to reduce the TSS level and adverse impact as much as possible.
- 7) MPC does not feel that the Act or regulations have imposed arbitrary or unreasonable hardship. Under normal circumstances and operation compliance with the Act and regulations would not be unreasonable. In the specific situation described in #2 (pond cleaning), the planned work will likely stir up sediment thus making it difficult to discharge water below the effluent limitations imposed by the NPDES permit.
- 8) MPC will pump water through filter bags in order to reduce the TSS in the water discharge in an effort to achieve compliance.
- 9) An alternate method of compliance would be to haul the water out by tanker trucks, to an approved disposal/treatment facility. There are several factors that have influenced MPC to apply for a provisional variance:
 - a. Accessibility of pond The pond is located in the back corner of the terminal and has limited access by a tanker. A gravel road leads to the back of the terminal, but the tanker would have to go over sloped dike walls to reach the area. It would be much safer to pump the water out of the pond.
 - b. Number of trucks While it is difficult to estimate the volume of water in the pond at the time of the cleaning, it would likely take 10 truckloads minimum to empty the pond. This would cause traffic concerns, as the gravel road that leads to the pond begins in the area where tankers wait to enter the loading rack, likely causing difficult maneuverability in the driveway.
 - c. Scheduling concerns To haul the water out by truck, the terminal, transporter and disposal/treatment facility would have to synchronize their schedules to do the work efficiently. This could be a difficult task. In the variance's proposed scenario, the contractor that will pump water out of the pond is a contractor that has already done several projects at the terminal this year, and is scheduled to be on-site for a separate project during the proposed time frame. Schedule will not be a concern, and the drying and dredging of the sediment could commence immediately.
- 10) The variance is requested to begin as soon as possible and last about a month. The work is not expected to take more than 5-10 days, but the extended time period allows for schedule flexibility and the uncertainty of the weather.
- 11) MPC has not requested any provisional variances within the past calendar year.

- 12) MPC LLC's Rockford Terminal is currently regulated by NPDES Permit No. IL0062782. The permit has an Effective date of August 1, 2005 and an Expiration date of July 31, 2010.
- 13) N/A

In addition to guiding me through the necessary steps in the provisional variance process, I would like to sincerely thank you in advance for your consideration of this application. Should you have questions, please contact me at 317-260-3284 or via email at agasser@marathonpetroleum.com.

Sincerely,

Andrew R. Gasser

Environmental Professional

Andrew R. Dasser

Terminal, Transport & Marine

cc: Dennis Connor, IEPA, Bureau of Water, 4302 N. Main Street, Rockford, IL 61103

D. Hapner

B.F. Beautz

Environmental File ENV-13/Rockford/NPDES Correspondence



RECEIVED AUG 2 4 2007

Terminal, Transport & Marine Health, Environment, Safety & Security



Marathon Petroleum Company LLC

1304 Olin Avenue Indianapolis, IN 46222 Telephone 317/244-9551 FAX 317/244-9556

SENT VIA OVERNIGHT MAIL

August 23, 2007

Illinois Environmental Protection Agency Bureau of Water - CAS 19 Attn: Roger Callaway 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276

SUBJECT: UNANTICIPATED BYPASS NOTIFICATION

> RE: NPDES Permit No. IL0062782

> > Marathon Petroleum Company LLC - Rockford Terminal

7312 Cunningham Road Rockford, IL 61102

Mr. Callaway:

This letter serves as a written follow-up to the verbal notification I gave to Ms. Connie Consorof Illinois EPA on Wednesday, August 22, 2007, that an unanticipated bypass of the retention pond at Marathon Petroleum Company LLC (MPC) - Rockford Terminal would occur later in the day. Notification was given to Ms. Consor at 9:00 AM CT, and the bypass discharge began around 1:00 PM CT. The bypass discharge has continued intermittently since then. Logs are being kept to document discharge times, and sampling is taking place per NPDES permit requirements. The procedures of 40 CFR 122 are being followed, specifically 122.41 (m).

The bypass was necessary due to the amount on rainfall that occurred recently. The terminal's retention pond had also previously been taken out of service. All of the tank dikes at the facility began filling, and as the water level continued to rise it became apparent that motors and pumps in the tank farm that serve the facility would soon be in danger of being damaged. I verbally notified Illinois EPA of the situation via a voicemail I left with Ms. Connie Consorat approximately 9:00 AM CT on August 22, 2007. I followed up with a telephone call to Ms. Consor on August 23, 2007 and notified that bypass discharge began the previous day and would continue as necessary due to frequent storms and additional rainfall. As with the August 7-8 bypass, I explained that MPC followed the federal regulation regarding unanticipated bypass procedures described in 40 CFR 122.41(m)(4)(i)(A):

"Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless: (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;"

Local contractors arrived at the terminal with necessary equipment (pumps, hoses, etc) and the Terminal Manager met with them to describe the protocol of the bypass. After it was decided by MPC that the bypass was indeed necessary, I phoned Ms. Consor at 9:00 AM CT to provide notification that the bypass would likely begin at approximately 1:00 PM CT. I explained the procedure MPC would follow, and of the intent to sample the discharge in accordance with the NPDES permit conditions, specifically one sample for every 100,000 gallons discharged. The samples will be analyzed for the parameters listed in the above referenced permit, and will be reported to Illinois EPA as part of the August Discharge Monitoring Report.

I appreciate your help in this matter and should you have questions please contact me at 317-260-3284 or via email at agasser@marathonpetroleum.com.

Sincerely,

Andrew R. Gasser

Environmental Professional

Andrew R. Dassy

cc: Ms. Connie Consor, IEPA, 1021 N. Grand Ave, Springfield, IL 62794-9276

D. Hapner

B.F. Beautz

Environmental File ENV-13/Rockford/NPDES Correspondence

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397 JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

217/782-0610

ROD R. BLAGOJEVICH, GOVERNOR

RENEE CIPRIANO, DIRECTOR

JUN 2 8 2005

Marathon Ashland 539 Main Street Findlay, Ohio 45840

Re.

Marathon Ashland

Marathon Ashland Petroleum LLC NPDES Permit No. IL0062782

Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Agency has begun a program allowing the submittal of electronic Discharge Monitoring Reports (eDMRs) instead of paper Discharge Monitoring Reports (DMRs). If you are interested in eDMRs, more information can be found on the Agency website, http://epa.state.il.us/water/edmr/index.html. If your facility is not registered in the eDMR program, a supply of preprinted paper DMR Forms for your facility will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

The Permit as issued is effective as of the date indicated on the first page of the Permit. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

Should you have questions concerning the Permit, please contact Jamie Cowles at the telephone number indicated above.

Sincerely,

Manager, Permit Section

Division of Water Pollution Control

SAK:BAK:JMC:04091602.dlk

Attachment: Final Permit

cc: Records

Compliance Assurance Section

Rockford Region

Illinois Environmental Protection Agency

Division of Water Pollution Control.

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

July 31, 2010

Issue Date:

June 28, 2005

Effective Date: August 1, 2005

Name and Address of Permittee:

Marathon Ashland 539 Main Street Findlay, Ohio 45840 Facility Name and Address:

Marathon Ashland Petroleum LLC Rockford Terminal 7312 Cunningham Road

Rockford, Illinois 61102

Discharge Number and Name:

001 Tank Farm Stormwater and Hydrostatic Test Water

003 Treated Groundwater

Receiving Waters:

Unnamed Tributary to South Fork Kent Creek Unnamed Tributary to South Fork Kent Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Manager, Permit Section

Division of Water Pollution Control

SAK:JMC:04091602.dlk

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 001*

x * a	LOAD LIM DAF	ITS lbs/day F (DMF)		TRATION IS mg/l	5 (20)	
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Flow	See Special Con	dition 1		*** X	Measure When Monitoring	202
рН	See Special Con	dition 2			**	Grab .
Oil & Grease			15	30	**	Grab
Total Iron		*	2	4 % 22	**	Grab
Total Suspended Solids		8	15	30	**	Grab

^{*} For Hydrostatic test water discharges see Special Condition 11.

^{**} The permittee shall sample once per every 100,000 gallons discharged per event. If discharge event is less than 100,000 gallons the Permittee shall be required to sample once. If flow stops for more than 24 hours, the next flow shall be considered a new event.

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 003

*	LOAD LIMI DAF	TS lbs/day (DMF)	CONCEN LIMIT	TRATION S mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Flow	See Special Cond	dition 1			1/Week	Single Reading
рН	See Special Cond	lition 2			1/Week	Grab
Benzene	14	0.018		0.05	1/Week	Grab
Ethylbenzene	0.005	0.054	0.014	0.150	1/Week	Grab
Toluene	0.010	0.027	0.028	0.074	1/Week	Grab =
Xylene	0.133	0.333	0.360	0.920	1/Week	Grab
Total BETX	2	0.271		0.750	1/Week	Grab
Total Priority Pollutants	EI .	0.036		0.01	1/Week	Grab
Total Suspended Solids	26.	Monitor Only	49	•	1/Week	Grab

Special Conditions

SPECIAL CONDITION 1 Flow shall be reported as a daily maximum and monthly average on DMR form in Million Gallons per Day (MGD).

SPECIAL CONDITION 2. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of each discharge, but prior to entry into the receiving ditch.

<u>SPECIAL CONDITION 4</u>. Monitoring must be conducted according to test procedures approved under 40 CFR 136 or other approved procedures. Monitoring results shall be reported in units of mg/l down to analytical detection limits which shall be comparable with the method detection limits in the 40 CFR 136 regulations.

<u>SPECIAL CONDITION 5.</u> The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/edmr/index.html.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using eDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 6. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 7. BETX is the sum of the concentrations of benzene, ethylbenzene, toluene, and xylenes. Total priority pollutant PNA's consist of the summation of all quantifiable values greater than 0.01 mg/L for the following polynuclear aromatic hydrocarbons.

Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
3,4 Benzofluoranthene
Benzo(ghi)perylene
Benzo(k)fluoranthene

Chrysene
Dibenzo(a,h)anthracene
Fluoranthene
Fluorene
Indeno(1,2,3-cd)pyrene
Naphthalene
Phenanthrene
Pyrene

SPECIAL CONDITION 8. The Agency has determined that the effluent limitations established for Outfall 001 in this permit constitute BAT/BCT for storm water for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in storm water discharges no longer discharged from outfall 001. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

<u>SPECIAL CONDITION 9</u>. The permittee shall obtain a Construction Authorization Permit for any increase in flows above 4320 G.P.D. DAF; 4320 G.P.D. DMF, or different routing of flows, through the groundwater treatment system other than as permitted under Permit No. 1992-EN-0250.

SPECIAL CONDITION 10. Issuance of this NPDES permit shall not be construed as Illinois EPA authorization to discharge hydrostatic test water to the storm water containment dike area. The permittee shall assume all liability associated with the discharge of hydrostatic test water to the containment dike area.

Special Conditions

SPECIAL CONDITION 11. Prior to Hydrostatic test water discharge the Permittee shall notify the Rockford Regional Office at least 48 hours prior to discharge by phone at 815/987-7760. Hydrostatic test water shall be discharged only if storage tanks are cleaned appropriately. If hydrostatic test water is contaminated (parameters detected using appropriate test methods), then it shall not be discharged, but be discharged of in an approved IEPA manner. If hydrostatic test water from appropriately cleaned gasoline and diesel storage tanks is discharged the permittee shall monitor and report concentrations (in mg/l) of the following listed parameters once per discharge of wastewater. The samples shall be effluent grab samples and the results shall be submitted with the next month Discharge Monitoring Report Forms to the IEPA unless otherwise specified by the Agency. The parameters to be sampled are:

GASOLINE STORAGE TANK:

DIESEL STORAGE TANKS

		7.2022 0101010E 17
Storet Number:	Parameter:	Parameter:
34034 78131 34371 81551	Benzene Toluene Ethylbenzene Total Xylenes	Polynuclear Aromatic Hydrocarbons*

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

The analyses for the above parameters shall meet the detection limits as established for accepted test procedures listed in 40 CFR 136.

^{*} Acenaphthene, Acenaphthylene, Anthracene, Benzo (a) anthracene, Benzo (a) pyrene, 3,4 Benzofluroanthene, Benzo (ghi) perylene Benzo (k) fluoranthene, Chrysene, Dibenzo (a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd) pyrene, Naphthalene