

PETDER

PETROLEUM INDUSTRY ASSOCIATION



Waste Motor Oil Management Project Activity Report 2016

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Waste Oil Management Project Activity Reports” are prepared for informational purposes only and are not intended as a substitute for professional consultancy service. Therefore, the activity reports should not be regarded as a consultancy service. The businesses need to be aware of the fact that the decisions taken based on data offered in the activity reports might not lead to the results expected. While reasonable efforts have been made to ensure the accuracy of the activity reports’ content, Petroleum Industry Association assumes no responsibility for any inaccuracy, omission, or any loss or damage arising in connection with any action or decision taken as a result of using or relying on the information in the reports. Businesses need to consider this fact while taking actions or decisions.

1. PETROLEUM INDUSTRY ASSOCIATION

MEMBERS



ExxonMobil



PETDER was established on 23 September 1996 by a group of leading fuel distribution companies with the aim of supporting a spectrum of activities ranging from production to consumption of oil products (fuel, lubricants, LPG). PETDER's members are Alpet, Aytemiz, Belgin, BP, ExxonMobil, Gulf, Opet, Petline, Petrol Ofisi, Petroyağ, Shell, Shell & Turcas, Total, and Turkuaz.

In addition to its activities on health, safety and environment in the sector, PETDER also carries out "Waste Motor Oil Management Project" and "One Barrel One Tree Project". PETDER plans and implements Traffic Safety Platform Fuel Committee activities with its members.

PETDER's Mission

PETDER advocates proactively for improvement in all fields of petroleum industry and carries out research and development activities to produce relevant, reliable and objective information to present for formation of industry policies and strengthen its advocacy role.

PETDER's Main Activity Areas:

In cooperation with its members and related stakeholders and in compliance with Competition Law, PETDER's main activity areas are;

- To play active role in the development of sector policies,
- To support the further development of competition,
- To perform research and development for the solution of market inefficiencies, especially the fight against illegal/non-registered fuel,
- To be a leader about the highest HSSE standards,
- To conduct communication activities for reliable and objective information for the sector and public,
- To represent the sector in all areas in an effective and efficient way,
- To perform research and development activities in collaboration with national and international professional organizations in order to increase knowledge and produce higher quality products and processes.

1.1 WASTE MOTOR OIL MANAGEMENT PROJECT

Pursuant to the “Regulation on the Control of Waste Oils” issued by the Ministry of Environment and Forestry on 21 January 2004, lubricant producers and importers are held liable to collect used motor oils which have been offered to the market.

Within the scope of the Waste Oil Management Project initiated by Petroleum Industry Association Commercial Enterprise on 19 April 2004, activities have been conducted in order to fulfill the provisions of this Regulation.

Within the framework of the cooperation protocol signed with the Ministry of Environment and Forestry on 30 July 2004, waste motor oils used in motor vehicles are collected from car care services, fuel stations and state car care stations by licensed and authorized teams under appropriate conditions within the scope of the Waste Oil Management Project.

Petroleum Industry Association was licensed as an “Authorized Institution” by the Ministry of Environment and Forestry on 4 September 2008 and the Authorized Institution Certificate was renewed for a period of 10 years by the Ministry of Environment and Urbanization with the decision dated 21 June 2016 and numbered 57070256-145.04-E8039. The amended regulation prohibits real or legal entities other than Authorized Institutions or motor oil producers to collect waste oils. PETDER is the only institution authorized for collection of waste motor oil. The project aims for processing of waste oils in facilities licensed by the Ministry

of Environment and Urbanization without causing any damage to the environment and human health, locating waste generators and raising awareness.

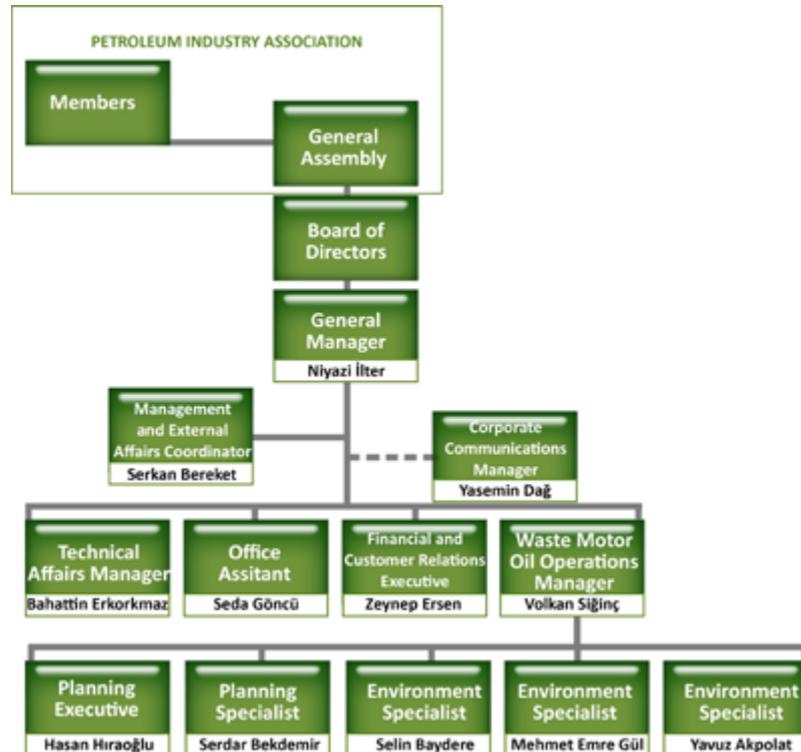
Since the beginning of the project in May 2004, the amount of waste motor oil collected and the number of collection points across the country continue to increase every year. Waste motor oil generated at motor oil changing spots are collected by licensed vehicles with National Waste Transportation Form and delivered to licensed facilities to be recovered (as energy or raw material) based on their categories or to be disposed, and adequate legal documentation is prepared and the waste generators

are not charged for any of these activities.

Waste oils which might pose a threat to the environment and human health are turned into a contribution to the economy by being processed at refining and regeneration facilities, cement, lime and iron-steel factories to be recovered as energy or raw material or through disposal within the scope of the principles specified by the Ministry.

The amount of waste oil collected by PETDER in the last 12 years has totaled 197,089 tons and the funds used in this period have reached 46 million TL.

ORGANIZATION CHART



2. OVERVIEW OF LUBRICANT INDUSTRY

2.1 LEGAL REGULATIONS

2011, 2012 and 2013 were important years in terms of legal regulations regarding the lubricant industry in Turkey. The regulations issued in order to prevent the use of non-fuel products as fuel substitute has had direct impacts on lubricant industry. The regulations made since 2011 are discussed below in chronological order.

23 January 2011 A point scoring system began to be used in lubricant production after the Production Competency Evaluation System was initiated with the Capacity Criteria published by TOBB and the amendment made by EMRA on 10 August 2011 introduced “the requirement for lubricant licenses to include a submission of the capacity report to the Energy Market Regulatory Authority evidencing a minimum production competence point of 50%”.

12 February 2011 “Communiqué Pertaining to Packaging and Marketing of Lubricants”, issued by Energy Market Regulatory Authority and published in the Official Gazette dated 12 February 2011 and numbered 27844, regulates the procedures in the lubricant industry from the production of products until they are offered into the market. The Communiqué was amended twice on 17 February 2011 and 23 December 2011. With the amendment made on 28 April 2011, the procedures and principles

of production for different brands were specified.

In accordance with the “Communiqué Pertaining to Packaging and Marketing of Lubricants”, oil producers are liable to ensure that all the products supplied to the market, including exported products, conform to TSE standards. This obligation has brought about the necessity of modification/revision of almost all lubricant standards. The modification and revision of the standards which began in 2011 is an ongoing process due to current requirements.

Pursuant to the Communiqué, in the event that a standard pertaining to the product being manufactured is amended, the certificate of conformity to the revised standard must be issued for the product within six months at the latest.

With another amendment to the Communiqué, it is a requirement to display certain information specified by the Authority (TSE Standard Number, Typical Properties, amount in kg or liter, Customs Tariff Statistical Position number) on the labels of the lubricants supplied to the market over 5 liters.

It is a requirement to submit the import, production, sales data and period-end stocks stating Customs Tariff Statistics Positions to the Ministry of Finance Revenue

Administration quarterly, in 35 days following the last day of each quarter. It is a legal obligation to obtain a Certified Public Accountant Report for the inspection of all import, production and sales activities and to keep the report to be submitted during inspections.

5 January 2012 Another problem that emerged after 2008 is the tax loss and unfair profit caused by certain activities conducted within the scope of deferment/cancellation practice. As per the SCT Circular No.16 issued by the Ministry of Finance Revenue Administration on 5 January 2012, it is a requirement to authenticate the Customs Tariff Code, which must be displayed on the labels, delivery notes and invoices of the products to be supplied to the market, at the relevant units of the Ministry of Customs and Trade (Customs Laboratories).

25 February 2012 Because the inconsistencies between the taxes imposed on lubricants and preparations were being exploited, SCT imposed on lubricants, base oil and preparations listed in sections 27 and 34 were equalized with the Council of Ministers Decree on 25 February 2012 and such exploitation was prevented to some extent. Moreover, although lubricant additives listed under section 38 were not used in such activities due to their high SCT

amounts, some items listed in section 38 which are not subject to SCT were sold with “0” SCT as lubricant additives.

12 June 2012 As the excessive amount of base oil import in 2011 (over 1 million tons) did not decrease in 2012, the sale of solvents and base oil for free circulation was prohibited at the bonded warehouses with the legislation issued by the Ministry of Customs and Trade on 12 June 2012 in order to prevent import of base oil other than to actual consumers.

17 August 2012 Import deposit imposed on non-fuel products was increased to 25% from 5% with the SCT General Communiqué issued by the Ministry of Finance on 17 August 2012.

27 August 2012 After the Prime Ministry Circular on Fight against Fuel Smuggling issued on 27 August 2012 in order to prevent illegal activities carried out under the name of “Number 10 Oil” despite all the regulations, a new phase promising a complete solution to the problem has begun.

9 October 2012 Following the Prime Ministry Circular, amendment studies regarding the Petroleum Market Law were initiated in order to prevent illegal fuel activities and SCT Communiqué issued by the Ministry of Finance on 11 October 2012, deferment/cancellation practice was abolished and refund system was put into practice regarding the Special Consumption Tax.

October 2012 With a Leading Case issued by the Supreme Court, it was decided that not only those who sell but also those who buy and

use Number 10 Oil are responsible as well and this Leading Case had media coverage stating that it filled a loophole.

24 April 2013 Pursuant to the communiqué by the Energy Market Regulatory Authority in order to prevent unrecorded use of lubricants, it has been obligatory to obtain a letter of conformity for domestic procurement and entry of non-fuel petroleum products into free circulation as of 1 July 2013.

23 January 2016 With an amendment to the “Petroleum Market License Regulation”, base oil production from waste lubricants was included within the scope of lubricant production activities.

The clause stating that “Production of base oil from waste lubricants can be performed by lubricant or distributor license holders, provided that it is included to the license as a subtitle. Production of base oil from waste lubricants is within the scope of lubricant production” was added to the Petroleum Market License Regulation.

28 January 2014 With an amendment to the “Communiqué Amending the Communiqué Pertaining to Packaging and Marketing of Lubricants”, the term allowed for obtaining a TSE certificate was increased to 18 months.

1 July 2016 “With an amendment to the “Communiqué on the Procedures and Principles of Supplying Non-Fuel Petroleum Products from Domestic and Foreign Sources”, it became possible to transfer the products in industrialists’ inventory or importers’ inventory, of which import procedures were

completed on behalf of the industrialists, to other industrialist. With the amendment to the same communiqué on 28 December 2014, the requirement of a compliance letter for non-fuel products was increased to 250 kilograms and 4 declarations a month and with another amendment on 1 July 2016, the requirement of a compliance letter was abolished for temporary import or entry of non-fuel products to free zones within the scope of inward processing procedure.

2.2 LUBRICANT CONSUMPTION FIGURES IN TURKEY

The estimations of lubricant consumption figures in Turkey are based on lubricant market data provided on a voluntary basis by AKPET, LUKOIL, ATAK, BP, GULF, MOIL, OPET, POAŞ, SHELL and TOTAL, Foreign Trade Statistics published by TUIK and declarations submitted to the Ministry of Environment and Urbanization. Lubricant consumption in Turkey, which was 432 thousand tons in 2015 increased by 7.40% in 2016 totaled 464 thousand tons.

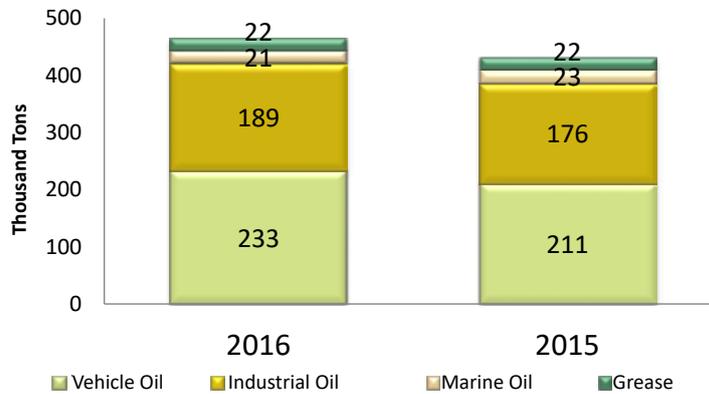


Figure 1: Lubricant Consumption in Turkey (thousand tons)

Vehicle oil constituted 50% of lubricants used in 2016 while 41% was industrial oil.

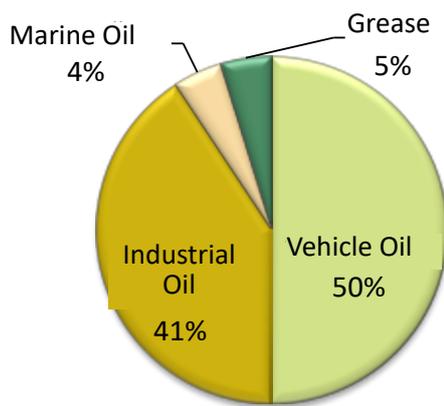


Figure 2: Lubricant Consumption in Turkey, (%)

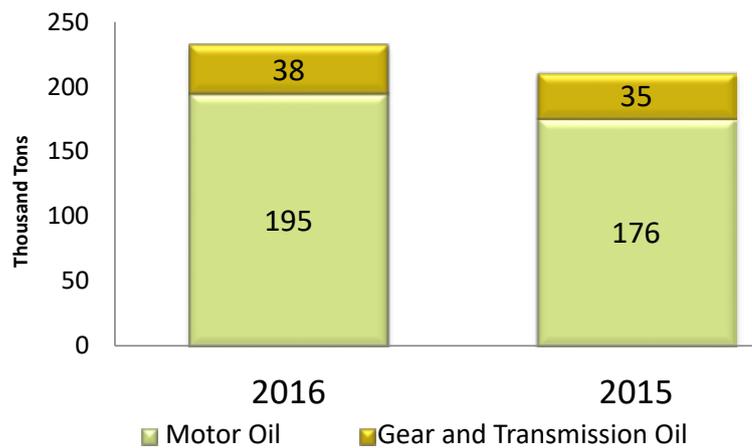


Figure 3: Vehicle Oil Consumption in 2016 and 2015 (thousand tons)

A large part of 233.000 tons of vehicle oils used in 2016 (84%) was used as motor oil in commercial vehicles (63%). Motor oil consumption increased by 11%.

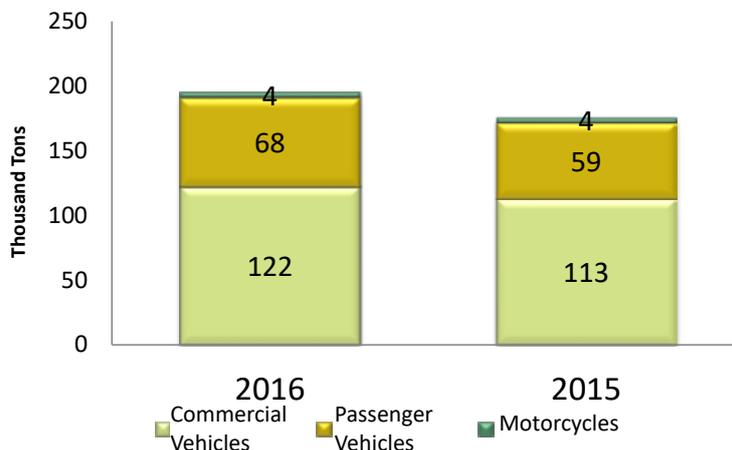


Figure 4: Motor Oil Consumption in 2016 and 2015 (thousand tons)

189.000 tons of industrial oil was used in Turkey in 2016.

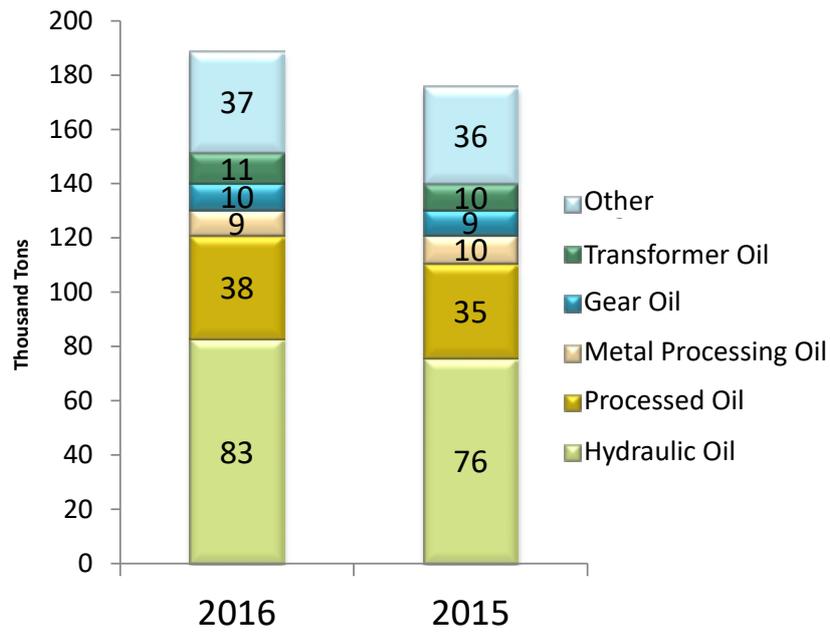


Figure 5: Industrial Oil Consumption in 2016 and 2015 (thousand tons)

Hydraulic oil constituted 44% of the industrial oils used in Turkey in 2016.

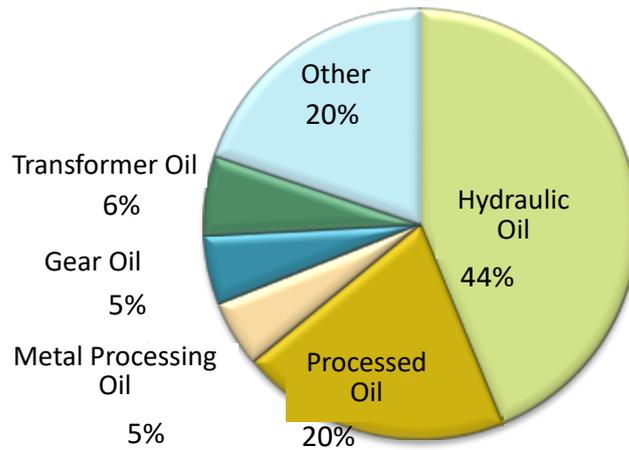


Figure 6: Industrial Oil Consumption in 2016 (%)

Among special products, antifreeze consumption increased by 14% in 2016 and reached 42 tons.

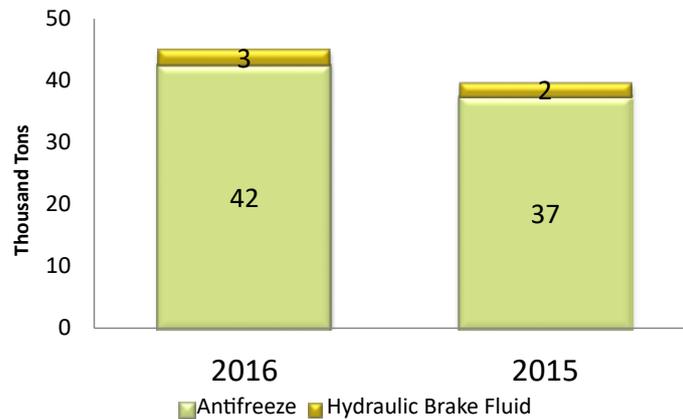


Figure 7: Chemicals Consumption in 2016 and 2015 (thousand tons)

The figures displayed in Table 1 indicate that an excessive amount of lubricants above the actual consumption level has been supplied to the market. Such surplus is due to market activities such as using and selling it under the name of Number 10 Oil in the fuel market.

Based on the evaluations on the amounts of base oil supplied to the market and lubricants imported and exported, lubricant surplus peaked in 2011 and one million tons of lubricants was supplied to the market. The fact that the demand surplus decreased to 278,634 tons in 2015 and to 101,727 tons in 2016 demonstrates the effect of the steps taken towards the solution of Number 10 Oil problem.

Table 1: Lubricant Import, Export and Consumption in Turkey
Source: TÜİK, TÜPRAŞ, PwC

Base Oil (TON/YEAR)	2011	2012	2013	2014	2015	2016
Base Oil Imported	1.033.622	832.627	743.795	591.346	552.358	396.292
Lubricants Imported	107.434	94.824	114.495	99.292	100.339	102.776
Additives and Preparations Imported	70.909	61.363	72.350	68.648	80.963	85.267
Base Oil Refinery Sales	380.104	266.000	154.291	119.697	126.430	128.760
SUPPLY to the market (A)	1.592.069	1.254.814	1.084.931	878.982	860.090	713.095
Base Oil Exported	1.052	706	3.858	3.264	4.626	842
Lubricants Exported	139.580	135.000	174.070	165.457	139.684	140.450
Additives and Preparations Exported	5.514	6.551	13.695	4.979	5.146	5.591
Domestic Lubricant Sales	411.000	408.000	416.000	417.000	432.000	464.485
Total DEMAND (B)	557.146	550.257	607.623	590.699	581.456	611.368
DIFFERENCE (A-B)	1.034.923	704.557	477.308	288.283	278.634	101.727

Due to successful measures and implementations, demand surplus decreased to 101,727 tons in 2016.

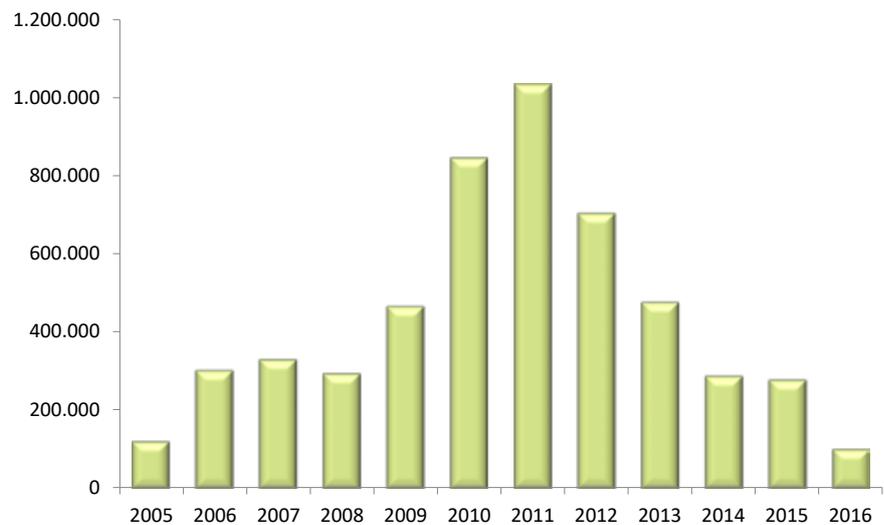


Figure 8: Lubricant Demand Surplus in Turkey (ton)

3. WASTE OIL MANAGEMENT LEGISLATION

Significant progress has been made in the period following the “Regulation on Control of Waste Oils” issued by the Ministry of Environment and Urbanization in 2004 and the additional regulations afterwards within the framework of the European Union harmonization studies conducted.

Table 2: National Legislation on Waste Oil Management

Date	Legislation	Status
21 January 2004	Regulation on Control of Waste Oils	Abolished
14 March 2005	Regulation on Control of Hazardous Wastes	Abolished
22 June 2005	Communiqué on General Principles to be Followed for Using Wastes as Additional Fuel	Abolished
5 July 2008	Regulation on General Principles of Waste Management	Abolished
30 July 2008	Regulation on Control of Waste Oils	Effective
6 October 2010	Regulation on Combustion of Wastes	Effective
23 January 2011	TOBB Capacity Criteria of Waste Oil Recovery Facilities	Effective
20 March 2015	Communiqué on Carriage of Wastes by Road	Effective
2 April 2015	Waste Management Regulation	Effective

In the European Union “Waste Directive” 2008/98/EC dated 19 November 2008, it was highlighted that separate collection of waste oils at the source is of utmost importance for the adoption of an appropriate waste management strategy and prevention of environmental damages caused by inappropriate disposal and that the management of waste oils should be conducted through life cycle assessments in accordance with the waste hierarchy, and preference should be given to options which deliver the best overall environmental outcome.

According to the “Waste Management Hierarchy” presented in the Directive, waste should be reduced at the source, used again, recycled as raw material, recovered as energy and disposed if there is no other alternative. Life Cycle Assessments provide valuable information on the issues such as recovering waste oil as base oil by means of various refining methods or in the form of energy using the most appropriate methods with minimum environmental impacts.

3.1 LIABILITIES OF WASTE OIL GENERATORS

Waste Oil Generators such as car care services or fuel stations shall categorize waste oils, and store waste oils separately according to their categories inside tanks/containers placed on an impermeable surface, avoiding mixture of waste oils with any foreign substances. Volume of waste motor oil temporary storage tanks/containers shall be minimum 200lt and maximum 1250lt and shall be protected against storm water. Tanks/containers shall be red and shall bear the wording “Waste Oil”. Posters displaying the warnings and information specified under Annex-4A of the Regulation on Control of Waste Oils shall be placed at oil changing spots to inform consumers and users. Motor oil producers or Authorized Institutions shall be notified when the temporary storage tanks/containers are full. National Waste Transportation Form shall be filled and the license of the vehicle shall be checked. In the case that the waste to be transported is waste motor oil, a document stating that the vehicle to conduct the delivery belongs to the Authorized Institution or motor oil producer shall be requested and the license shall be checked. The green copy of the National Waste Transportation Form shall be submitted to the Provincial Directorate of Environment and Urbanization immediately following the delivery. Disposal copy shall

be stored for 5 years and provided when required by authorities during inspections. Waste generators are liable to fill in the Waste Oil Declaration forms, which can be found in Annex-2 of the Regulation on General Principles of Waste Management, based on lubricant consumption and waste generation amounts of the previous year and submit them to the Provincial Directorate of Environment and Urbanization by the end of February of the following year.

3.2 IMPORTANCE AND PRINCIPLES OF NATIONAL WASTE TRANSPORTATION FORM

National Waste Transportation Form (UATF) is the most important legal document of the disposal process and consists of 6+2 copies: Green (1 copy), blue (2 copies), pink (1 copy), white (2 copies) and yellow (2 copies, for international transportation). The green copy shall be received by the waste generator prior to transportation and sent to the Provincial Directorate of Environment and Urbanization of the relevant city to report that transportation has begun. Blue (2), pink (1), white (2) copies shall be given to the certified driver of the licensed vehicle. The driver of the licensed vehicle should be reminded that a certified white copy shall be sent to the waste generator.

Blue (2), pink (1) and white (2) copies shall be kept available in the licensed waste oil transportation vehicle during transportation to be submitted at controls. If the waste oils are accepted into the facility, blue (2), pink (1) and white (2) copies shall be submitted to the licensed facility for approval by the driver of the licensed waste oil transportation vehicle. In the case that the waste is not accepted into the licensed facility, the driver of the licensed waste oil transportation vehicle shall inform the waste oil generator of the situation and return the waste oil to the generator if deemed necessary.

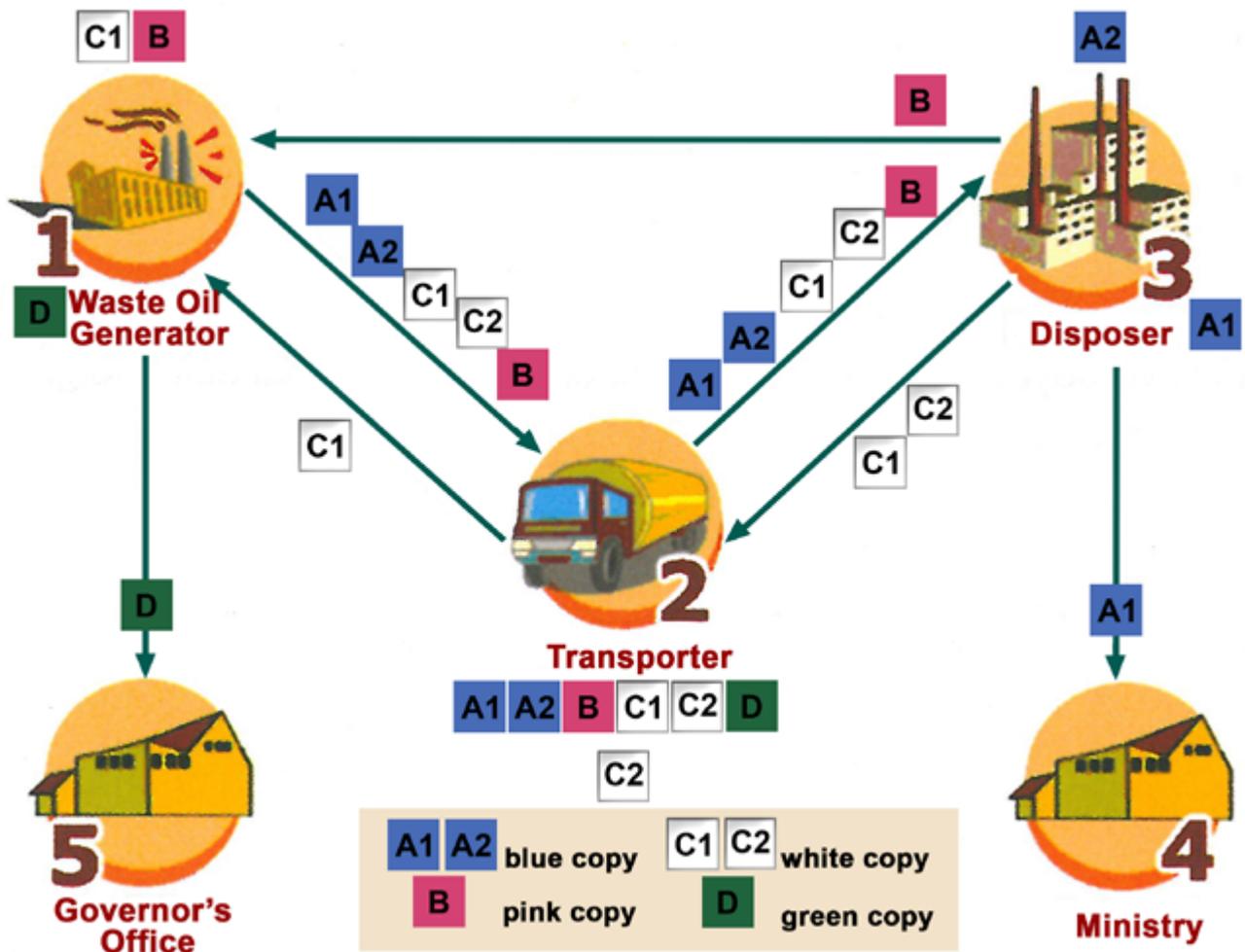
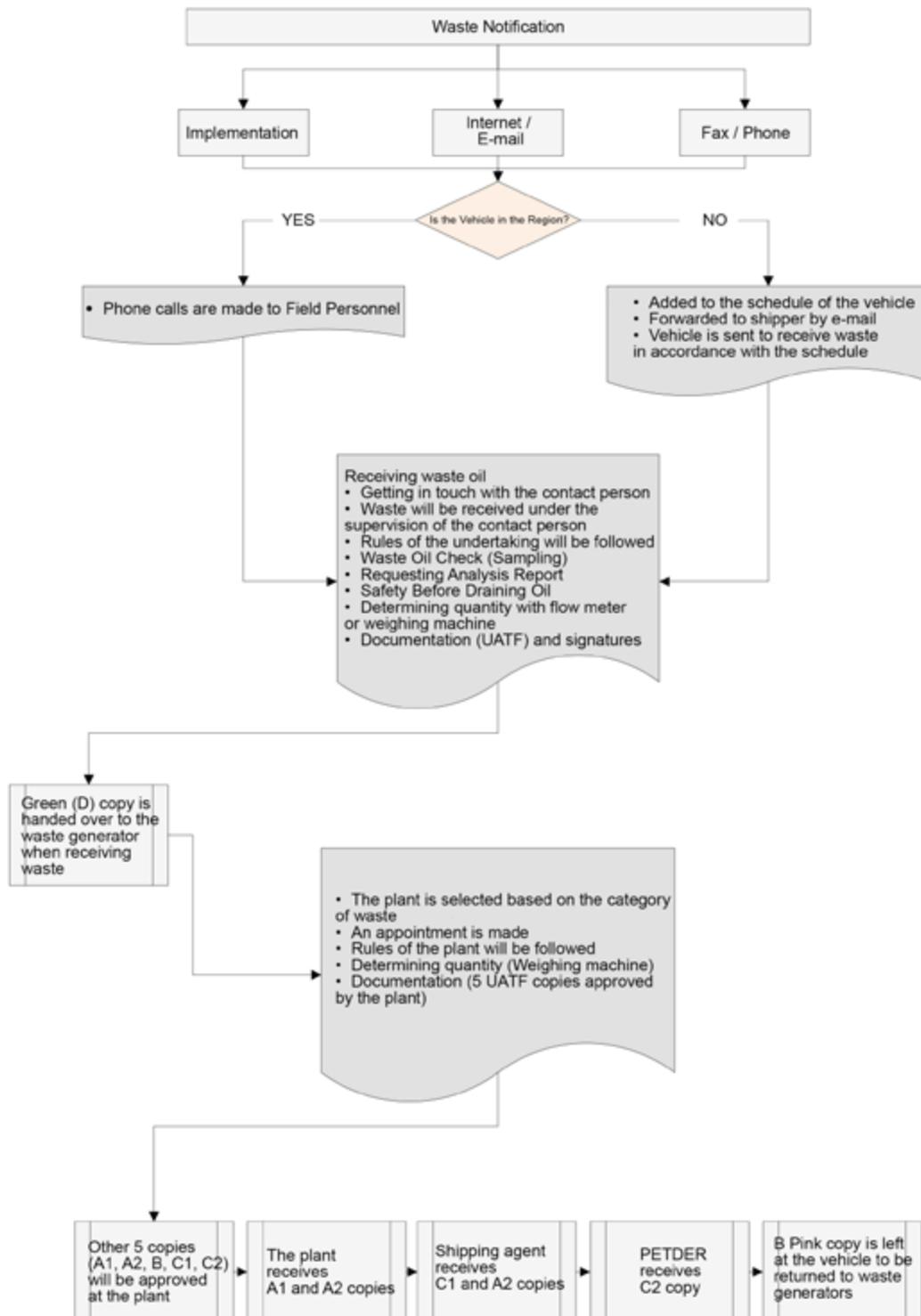


Figure 9: Breakdown of National Waste Transportation Form

The licensed recovery facility (refining and regeneration or additional fuel facility) or disposal facility receiving the waste oils shall keep one of the blue copies and send the other one to the Ministry of Environment and Urbanization. The pink copy shall be sent to the waste generator immediately.

The driver of the waste oil transportation vehicle shall keep one of the certified white copies and return the other certified copy to the waste generator. It is a legal obligation to keep National Waste Transportation Forms for a period of five years.

3.3 WORK FLOW CHART



4. PETDER WASTE OIL MANAGEMENT ACTIVITIES

233,000 tons of vehicle oil was offered to the market in 2016 and it is estimated that 151,000 tons of waste motor and transmission oil was generated. The amount of waste motor oil collected by PETDER was approximately 20,000 tons. The main reason why the amount did not increase is that waste oil is being used in illegal fuel activities. The problems regarding the issue and proposed solutions are presented under Section 7.

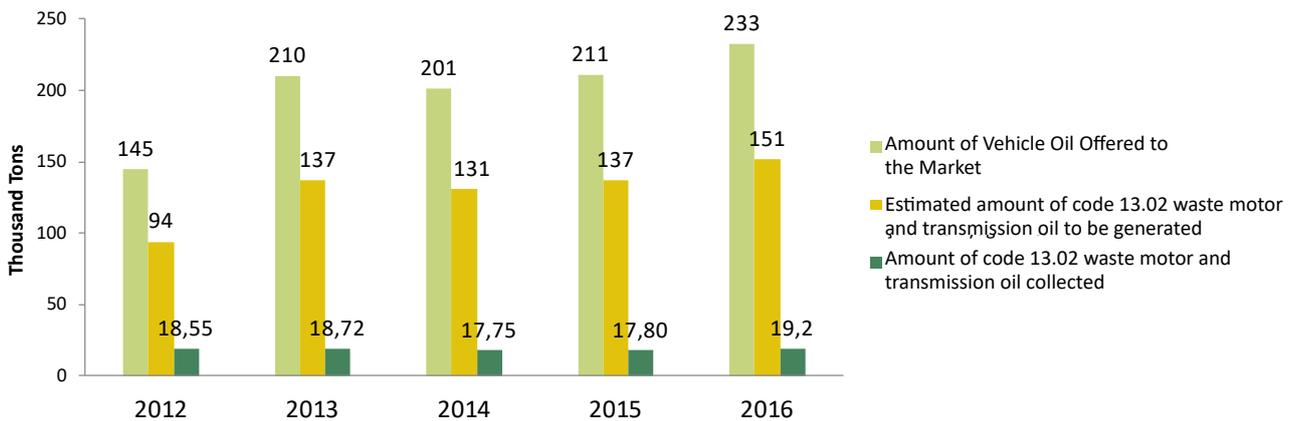


Figure 10: Comparison of Estimated Amounts of Waste Motor Oil and Transmission Oil Generated and Amounts Collected Each Year (thousand tons)

Within the framework of “waste motor oil collection” activities that have been carried out by PETDER since 2004 in accordance with the Regulation on the Control of Waste Oils, 155,197 trips have been made to 15,636 waste motor oil generators in 81 cities and the amount of waste motor oil collected has totaled 197,089 tons in the last 12 years.

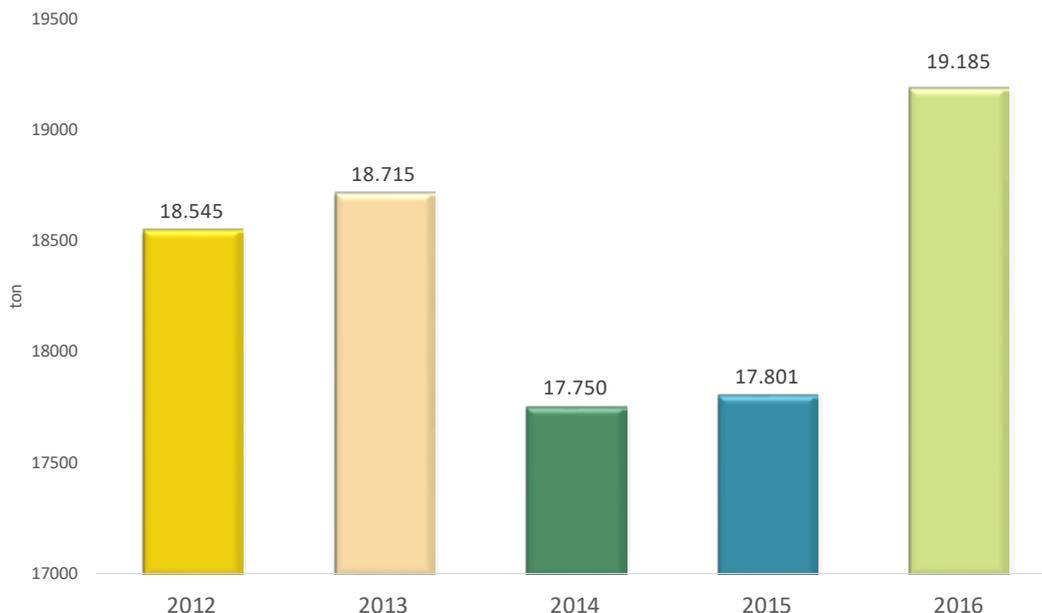


Figure 11: PETDER Waste Oil Management Project – Comparison of Amount of Waste Motor Oil Collected Each Year (ton)

In 2016, 14,651 trips were made to waste motor oil generators by PETDER and 19,185 tons of waste motor oil was collected.

The total funds used since the beginning of the project reached TL 46 million.

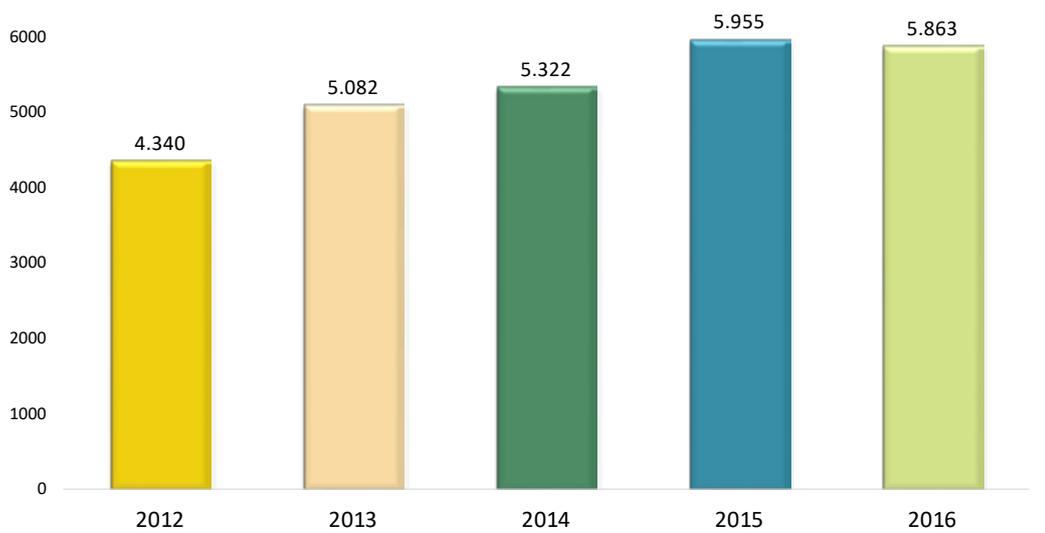


Figure 12: PETDER Waste Oil Management Project – Comparison of the Funds Used Each Year (thousand TL)

The number of waste generators within the scope of waste oil management activities in 2016 was 4,976.

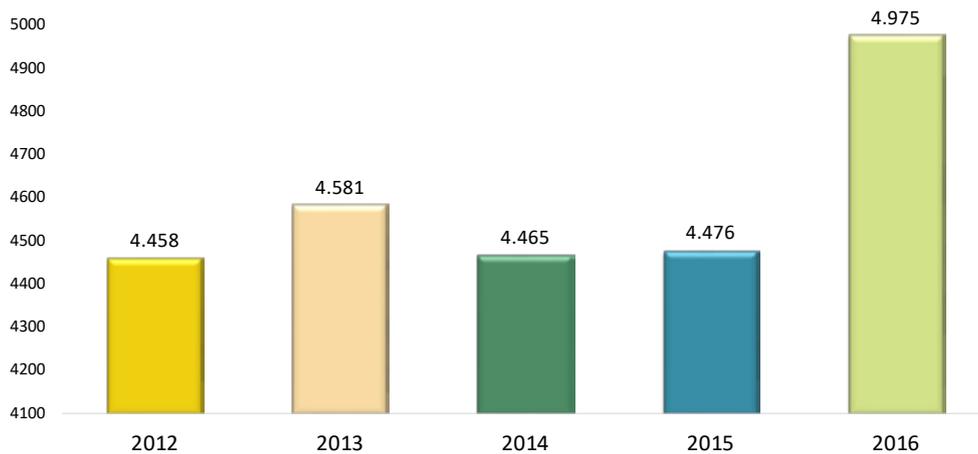


Figure 13: PETDER Waste Oil Management Project – Comparison of the Number of Waste Generators Each Year

The number of trips to waste generators within the scope of waste oil management activities in 2016 was 14,651 and the total number of trips since the beginning of the project reached 155,197.

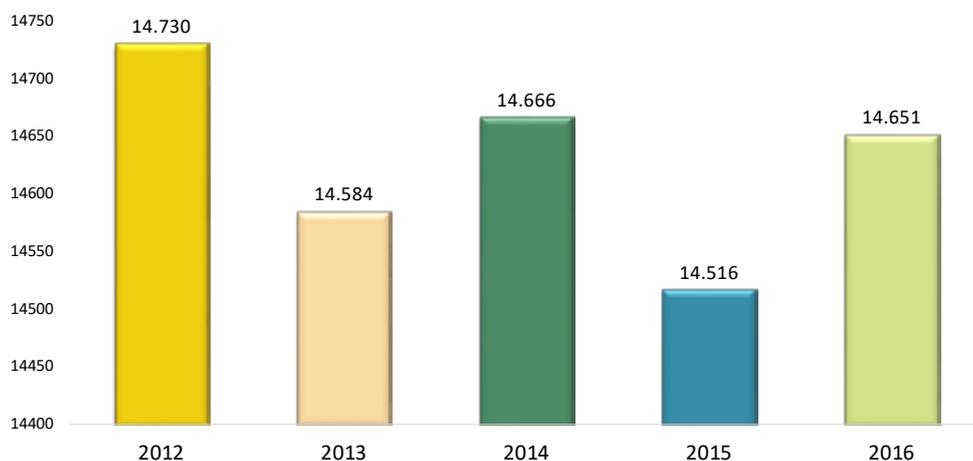


Figure 14: PETDER Waste Oil Management Project – Comparison of the Number of Trips Made to Waste Generators Each Year

In 2016, 13,059 tons of waste motor oil was collected from car care services, 2,610 tons from state institutions and 3,516 tons from other generators.

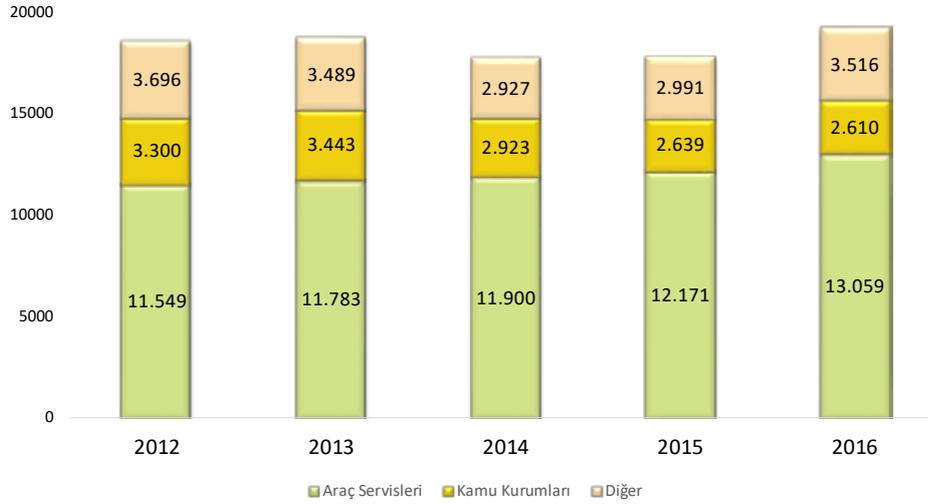


Figure 15: Sources of Waste Motor Oil Collected Each Year (ton)

13,059 tons of the waste motor oil collected in 2016 was collected from car care services, 1,831 tons from industrial vehicle parks, 839 tons from state institutions, 898 tons from municipalities, 1,206 tons from construction and mining industry, 211 tons from oil production facilities, 873 tons from military institutions, 193 tons from shipping companies, 152 tons from fuel stations and 17 tons from washing and lubricating stations.

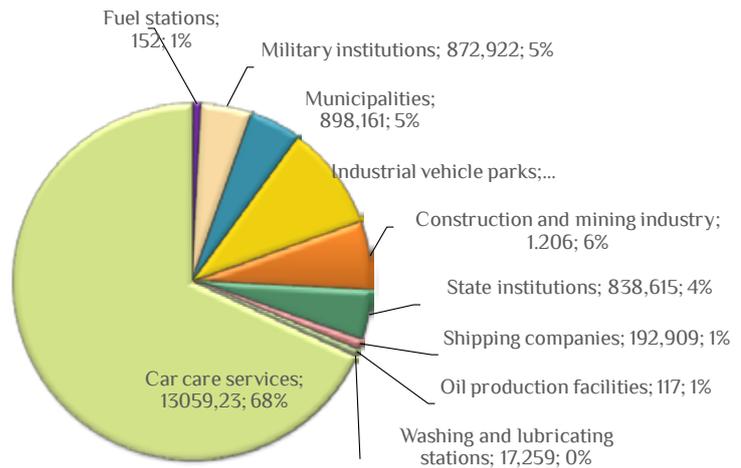
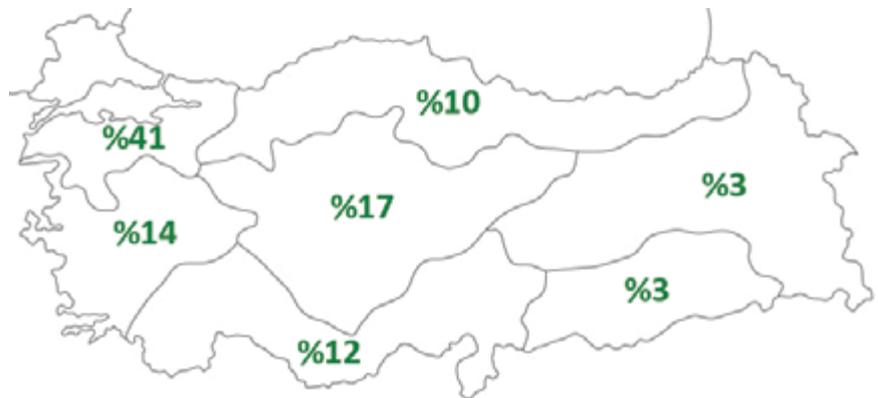


Figure 16: Industrial breakdown of waste motor oil collected in 2016

7,906 tons of the waste motor oil collected in 2016 was collected from Marmara Region, 2,626 tons from Aegean Region, 3,252 tons from Central Anatolia Region, 1,948 tons from Black Sea Region, 2,208 tons from Mediterranean Region, 571 tons from Southeastern Anatolia Region and 675 tons from Eastern Anatolia Region.



5. REGIONAL BREAKDOWN OF WASTE MOTOR OIL COLLECTED

The amounts of waste motor oil collected from cities are listed under Table 3.

- Top ten cities in waste motor oil collection in 2016 were İstanbul, Ankara, İzmir, Bursa, Kocaeli, Antalya, Zonguldak, Adana, İçel and Hatay.
- The cities where the amount of waste motor oil collection was the least were Iğdır, Tunceli and Kilis.
- No waste oil was collected from Siirt, Hakkari, Muş, Batman and Şırnak.

Table 3: Regional Breakdown of Waste Motor Oil Collected

MEDITERRANEAN REGION						
City	2012	2013	2014	2015	2016	
					Kilos	Trips
Adana	630.834	579.759	553.493	511.932	499.351	471
Antalya	530.742	501.681	534.706	537.578	643.515	549
Burdur	10.257	7.245	8.184	7.531	9.213	10
Hatay (Antakya)	287.847	296.131	407.363	412.705	426.362	357
Isparta	38.794	54.220	44.853	36.696	45.927	38
İçel (Mersin)	446.297	416.976	392.303	442.364	477.785	307
Kahramanmaraş	78.838	74.033	74.807	60.888	63.887	52
Osmaniye	20.720	28.208	24.007	29.955	41.762	65
Total	2.044.329	1.958.253	2.039.716	2.039.649	2.207.802	1.849

EASTERN ANATOLIA REGION						
City	2012	2013	2014	2015	2016	
					Kilos	Trips
Ağrı	25.684	5.692	29.003	3.060	22.859	5
Ardahan	2.449	30.885	4.601	638	11.243	5
Bingöl	48.482	59.309	70.307	23.267	21.191	6
Bitlis	0	21.254	2.820	12.100	8.136	4
Elazığ	74.900	138.461	110.646	81.582	80.244	70
Erzincan	56.371	75.751	44.234	35.434	69.069	38
Erzurum	247.981	203.961	246.353	219.029	215.353	123
Hakkari	0	39.035	20.453	927	0	0
Iğdır	13.402	26.549	14.986	10.767	2.181	3
Kars	65.091	41.121	66.172	48.835	50.053	24
Malatya	116.489	98.143	110.497	120.605	128.488	98
Muş	1.068	7.753	96	711	0	0
Tunceli	30.904	14.895	8.006	9.272	3.919	7
Van	42.000	40.678	43.367	70.093	62.282	35
Total	724.821	803.487	771.541	636.320	675.018	418

AEGEAN REGION

City	2012	2013	2014	2015	2016	
					Kilos	Trips
Afyonkarahisar	138.725	137.326	121.321	171.704	184.093	71
Aydın	124.060	122.874	106.505	126.013	143.734	141
Denizli	141.872	155.998	129.981	140.198	134.654	116
İzmir	1.524.734	1.485.280	1.444.804	1.472.368	1.420.313	1.232
Kütahya	173.791	62.806	94.666	105.369	96.072	60
Manisa	178.057	211.670	186.652	142.822	203.145	150
Muğla	368.940	259.784	235.195	273.818	274.146	331
Uşak	148.740	179.097	193.789	209.302	169.570	55
Total	2.798.919	2.614.835	2.512.913	2.641.594	2.625.727	2.156

SOUTHEASTERN ANATOLIA REGION

City	2012	2013	2014	2015	2016	
					Kilos	Trips
Adıyaman	11.153	17.844	19.031	31.579	20.289	27
Batman	30.297	17.129	19.334	14.804	0	0
Diyarbakır	162.003	175.623	215.210	232.287	181.577	117
Gaziantep	308.236	310.276	276.326	288.825	286.849	155
Kilis	7.730	2.302	4.024	633	4.592	5
Mardin	34.178	50.467	49.695	16.491	11.485	9
Siirt	7.651	21.799	9.770	0	0	0
Şanlıurfa	60.977	96.333	84.361	71.019	66.591	60
Şırnak	0	96.170	30.986	0	0	0
Total	622.225	787.943	708.737	655.638	571.383	373

CENTRAL ANATOLIA REGION

City	2012	2013	2014	2015	2016	
					Kilos	Trips
Aksaray	76.645	73.993	66.385	76.015	117.471	40
Ankara	1.553.734	1.751.972	1.720.050	1.628.659	1.846.020	1.429
Çankırı	6.931	15.299	6.509	6.701	14.266	11
Eskişehir	360.887	313.306	302.910	320.398	339.179	247
Karaman	13.695	12.652	4.574	8.342	9.641	9
Kayseri	276.479	344.366	234.447	278.746	308.335	197
Kırıkkale	3.254	3.413	11.329	6.406	6.224	7
Kırşehir	9.965	10.138	9.603	11.740	7.240	7
Konya	327.513	289.999	282.417	339.505	351.478	273
Nevşehir	21.539	18.538	20.914	17.177	15.714	27
Niğde	37.243	38.486	36.417	44.893	28.287	38
Sivas	145.501	157.553	190.993	173.906	178.821	112
Yozgat	11.490	7.070	6.409	9.739	29.051	17
Total	2.844.876	3.036.785	2.892.957	2.922.227	3.251.727	2.414

BLACK SEA REGION						
City	2012	2013	2014	2015	2016	
					Kilos	Trips
Amasya	60.637	46.828	57.788	45.969	68.194	63
Artvin	54.090	84.916	64.118	54.189	65.453	30
Bartın	19.027	59.477	36.111	28.909	29.037	42
Bayburt	5.764	2.168	21.931	8.933	6.279	6
Bolu	51.600	55.910	72.935	70.537	45.775	50
Çorum	85.905	70.125	87.619	81.676	82.584	143
Düzce	121.024	142.680	94.236	118.314	92.284	101
Giresun	64.894	70.747	60.460	57.098	60.105	78
Gümüşhane	45.037	47.539	20.384	14.479	6.616	6
Karabük	10.504	12.679	17.481	16.857	12.337	17
Kastamonu	46.038	24.807	39.860	28.988	30.780	30
Ordu	92.834	92.070	75.437	88.046	109.029	111
Rize	60.069	62.604	65.752	77.310	83.243	76
Samsun	282.116	281.533	295.081	306.926	320.116	259
Sinop	51.562	9.650	7.658	6.820	8.911	14
Tokat	48.650	41.023	44.233	50.614	5.336	55
Trabzon	219.107	201.268	210.506	246.553	274.508	255
Zonguldak	421.229	466.711	270.969	308.273	599.025	149
Total	1.740.087	1.772.735	1.542.559	1.610.491	1.899.612	1.485

MARMARA REGION						
City	2012	2013	2014	2015	2016	
					Kilos	Trips
Balıkesir	228.867	237.856	237.191	130.109	197.092	188
Bilecik	34.996	33.962	32.587	26.078	37.804	42
Bursa	871.258	801.161	778.263	778.517	806.595	825
Çanakkale	172.536	128.333	149.779	115.605	192.198	127
Edirne	272.052	194.864	132.012	92.467	133.985	125
İstanbul	4.482.433	4.611.444	4.697.601	4.762.222	5.090.529	3.627
Kırklareli	99.579	127.978	99.642	101.957	111.968	88
Kocaeli (İzmit)	929.536	815.661	631.100	741.721	748.006	553
Sakarya (Adapazarı)	252.498	378.910	189.538	158.308	202.653	214
Tekirdağ	409.727	382.372	310.272	364.663	356.421	321
Yalova	15.971	28.321	23.502	23.324	28.230	46
Total	7.769.453	7.740.862	7.281.487	7.294.971	7.905.481	6.156

6. WASTE OIL RECOVERY METHODS

Examination of waste oil management strategies in developed countries indicates that rather than a single standard approach, there are various different approaches. In accordance with the legal regulations worldwide, waste oils are treated in three different ways which are recovery as raw material or energy in controlled environments, hazardous waste and disposal.

Amount of Motor and Transmission Oil Offered to the Market (2016)	233.000 tons
Estimated Amount of Waste Motor and Transmission Oil to be Generated (%65)	151.000 tons
Amount of Waste Motor and Transmission Oil Collected (2016)	19.185 tons
Amount of Waste Lubricants Not Recorded	131.800 tons

The amount of motor and transmission oil offered to the market in 2016 was 233,000 tons. It is estimated that approximately 65% of this amount became waste motor and transmission oil.

19,185 tons of waste oil collected in Turkey in 2016 constitutes 13% of the total waste motor and transmission oil generated. The remaining 131,800 tons may be subject to illegal activities. When the demand surplus lubricants and base oil are added, the amount of waste oil that might be subject to Number 10 Oil reaches 233,527 tons.

6.1 WASTE OIL RECOVERY

The amount of waste motor oil collected by PETDER in 2016 was 19,185 tons. 12% of the waste motor oil collected (2,272 tons, Category 1) was recovered as raw material in licensed refining and regeneration facilities, 86% (16,341 tons, Category 2) was recovered as energy abroad on re-export basis and at cement, lime or iron and steel factories and 2% (572 tons, Category 3) was transferred to disposal facilities as hazardous waste.

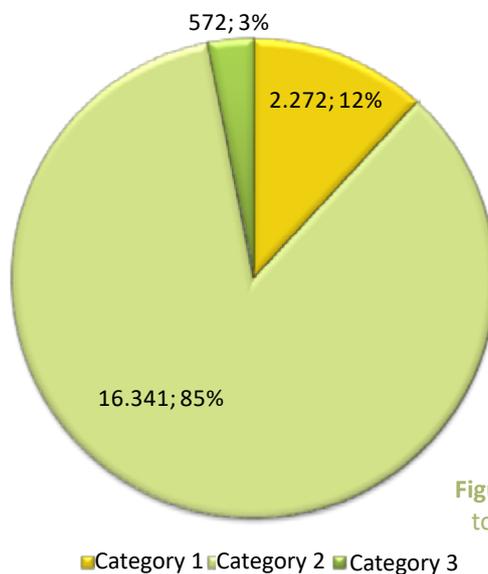


Figure 17: Categories of Waste Motor Oil Collected in 2016 (Ton;%)

6.1.1 Recovery of Waste Oil as Raw Material

Based on the contamination level of the waste oil and the process implemented, base oil is produced by re-refining waste oils. Recovery of waste oils as raw material is conducted in two ways in accordance with the waste management principles:

- Taking a sample from the place where the lubricant is used and testing the amount of additives or the functionality of the lubricant and reusing the lubricant after cleaning or regenerating through a simple process at the place of use,
- Production of base oil through re-refining process at licensed regeneration facilities.

In principle, producing base oil from the waste oil which involves small quantities of contaminants such as water, fuel, sand, oxidation products etc., which is not biologically soluble and which involves less than 50 ppm PCB/PCT, through a re-refining process is one of the technological options. Therefore, it is of utmost importance that the waste oils collected for recovery are separated at the source.

The clause stating that “Production of base oil from waste lubricants can be performed by lubricant or distributor license holders, provided that it is included to the license as a subtitle. Production of base oil from waste lubricants is within the scope of lubricant production” was added to the Petroleum Market License Regulation on 23 January 2016. As a result, real and legal persons who wish to carry out waste oil recovery activities must obtain a lubricant license from EMRA. It is a requirement to obtain TS 13369 standard granted by Turkish Standards Institute to document the compliance of the recovered products to the standards and a “Lubricant License” granted by Energy Market Regulatory Authority to supply these products to the market.

6.1.2 Energy Recovery from Waste Oil

Using waste oil as additional fuel in cement and iron-steel industry is a worldwide practice for energy recovery. After the removal of the suspended solid contaminants and water, a certain amount of the waste oil is added to the fuel and used in cement, lime, iron-steel manufacturing facilities and power plants as additional fuel. In Turkey, it is a requirement for facilities intending to use waste oil as additional fuel to obtain a license from the Ministry of Environment and Urbanization.

Fuel	Calorific Value (kcal/kg)
Natural Gas	13.000
Diesel	10.250
Waste Oil	9.500-10.000
Fuel Oil 6	9.600
Lignite	4.600

Table 4: Comparison of Calorific Values of Fuels

6.1.3 Waste Oil Disposal

In the case that the parameter value of the contaminants in the waste oil exceeds the legal limits, the waste oil is not available for recovery as raw material or energy. Such wastes classified as Category 3 by PETDER should be disposed by incineration. Disposal of oils under this category is performed by İzaydaş in Turkey.

Text



PETDER
Smart Phone
Application

Call

4444 924
YAG

Send
E-mail

info@petder.org.tr



With 1 liter of waste motor oil,
0,625 liters of base oil can
be produced.

With 1 liter of waste motor oil,
3.56 kwh of electricity can be produced.

With 1 liter of waste motor oil,
9500 – 10000 kilocalories of energy
can be recovered.

Burning of waste oils in uncontrolled environments
can lead to serious damages to human health
by causing the formation of pollutants such as sulfur,
chlorides and heavy metals.

Waste oil that interferes
with the sewage damages the city
infrastructure by destroying the
sewer pipes and phoseptic pits.

Waste oil poured into
the soil mixes with
groundwater.

Waste oils poured into
waterways create a layer on the
water that blocks the sun's rays,
disrupting the oxygen cycle.

With 1 liter of waste motor oil,
one million tons of fresh water
is contaminated.

**DELIVER YOUR WASTE MOTOR OIL TO PETDER,
THE AUTHORIZED INSTITION.**

19,185 tons of waste motor oil collected by PETDER in 2016;

* would contaminate 19.2 billion cubic meters of fresh water.

* would contaminate the annual fresh water supply necessary for 89 million people.

* would contaminate 16% of the total underground and surface water supplies.

* would produce electricity sufficient for the annual electricity need of 33,000 people.

7. PROBLEMS IN WASTE OIL COLLECTION AND PROPOSED SOLUTIONS

Despite all measures and successful steps taken in Turkey against smuggled and illegal fuel, use of illegal/nonstandard fuels, known as Number 10 Oil, continues. Not only base oil but also waste oil is used to produce Number 10 Oil. Waste motor oil not delivered to PETDER is mostly used to produce Number 10 Oil, as molding oil in constructions and for heating purposes (at industrial sites, greenhouses etc.).

However, especially use of Number 10 Oil causes loss of life and property, has adverse effects on national economy as a result of tax loss and unfair competition and pollutes the environment. Most of the waste motor oil not delivered to the authorized institution is sold under the name of number 10 oil at “nonmarket” areas such as:

- ◆ Truck / bus terminals,
- ◆ Vehicle industrial sites and
- ◆ Stores and open spaces at roadsides.

Unfortunately, despite all adverse effects and all measures taken, waste motor oil is still subject to trade at prices up to 1000 TL/Ton instead of being delivered to the authorized institution because of the unlawful profit obtained as a result of SCT imposed on legal fuel products. PETDER works devotedly to collect waste motor oil in 81 cities and their counties and reaches everyone and receives waste oil regardless of the amount.

However, waste motor oil collection is not at a satisfactory level in Turkey. The main reason behind this is deriving high profits by using waste motor oil in illegal fuel activities by not paying the SCT. Aside from this main reason, the other reasons why waste motor oil delivery to PETDER is not at a satisfactory level are listed below:

1. Inspections and sanctions are not sufficient.

Unfortunately, efficient, sufficient and consistent inspections in regard to Number 10 Oil used in illegal fuel activities and sanctions as a result of such inspections are not imposed. Besides inspections and sanctions, the fines and penalties imposed are not shared with the public at a sufficient level.

Waste motor oil becomes subject to illegal activities by;

- ◆ not being delivered to the authorized institution by waste generators,
- ◆ unauthorized people who receive/purchase waste oil,
- ◆ those who use waste oil in fuel activities under the name of refining/regeneration,
- ◆ those who sell Number 10 Oil as fuel substitute, and
- ◆ being used as fuel by consumers especially in public transportation and shipping industries.

Due to lack of disincentives in regard to inspections and sanctions, waste oils are not delivered to the

The use of Number 10 Oil causes loss of life and property, has adverse effects on national economy as a result of tax loss and unfair competition and pollutes the environment.

authorized institution by waste generators, are purchased and sold at high prices by licensed and unlicensed collectors, are used in fuel activities under the name of regeneration/refining, are used as fuel by consumers mainly in public transportation and shipping industries and all these illegal activities have been continuing for a long time and cannot be prevented.

In order to prevent such activities, regular, continuous and efficient inspections must be carried out at each of the four links of this chain. PETDER has made various notifications to relevant authorities regarding the issue. Moreover, the inspections to be carried out should be supported with deterrent sanctions and these should be shared with the public. Unfortunately, besides insufficient inspections, lack of deterrent sanctions encourages such activities.

2. Base oil production from waste oil within the scope of EMRA license should be monitored.

Waste oil regeneration/refining activities are carried out by industrialized refineries in all developed countries and they produce base oil using advanced technology. However, in Turkey, such recovery activities are carried out based on form (color and odor) without being subject to a license and mostly using primitive methods.

3. Compliance to the compulsory TS 13541 standard relating to the facility where base oil production from waste oil is carried out and TS 13369 standard relating to base oil produced should be monitored through inspections.

Compulsory standards relating to plants producing base oil from waste oil and applicable standards relating to the product should be implemented and monitored through inspections.

4. Some public institutions do not deliver the waste oil generated.

The amount of waste motor oil received from public institutions, municipalities and provincial special administrations is not sufficient.

5. Inspections and sanctions should be extended; the fines and penalties imposed should be shared with the public.

In regard to the main five links of Number 10 Oil chain (waste oil generators, unauthorized persons collecting/transporting waste oil, Number 10 Oil producers and Number 10 Oil users), inspections should be extended, deterrent sanctions should be imposed and these should be shared with the public by public authorities, especially by the Ministry of

In regard to the main five links of Number 10 Oil chain (waste oil generators, unauthorized persons collecting/transporting waste oil, Number 10 Oil producers and Number 10 Oil users), inspections should be extended, deterrent sanctions should be imposed and these should be shared with the public by public authorities.

Environment and Urbanization.

5.1. Waste Oil Generators: It is believed that regular inspections on the amount of “lubricant input-waste oil output” as well as amount and documentation of waste oil delivered to PETDER mainly at car care services and workplaces at industrial sites, where lubricants are used and/or waste oil is generated as a result, would be beneficial to prevent sale of waste oil. For this purpose, the amounts delivered to PETDER by waste motor oil generators and their product purchase declarations to Provincial Directorates should be crosschecked.

5.2. Unauthorized Persons Transporting and Collecting Waste Oil: Waste motor oil is collected by unauthorized vehicles and persons under different names and sold to

Number 10 Oil producers. Such unauthorized waste oil collection activities sometimes carried out using PETDER’s name and with vehicles not conforming to HSE-S standards must be prevented and Code 13.02 should be excluded from the licenses of vehicles which do not have a contract with PETDER.

It is stated in vehicle licenses granted by Provincial Directorates that wastes under code 1302 (including waste motor oil) can be carried with these vehicles. This is interpreted by waste motor oil generators as it is also allowed to collect waste oil with these vehicles and abused by collectors without license/authority to carry wastes under code 1302. As a result, waste motor oil is collected under various names by unauthorized vehicles and persons and sold to Number 10 Oil producers.

Therefore, it is necessary to grant the license or authority to carry goods with the code 1302 only to vehicles carrying goods for the Authorized Institution and to grant such license to other vehicles only in the case of existence of a contract with PETDER as the Authorized Institution. Up-to-date license plates of the vehicles are available at PETDER.

5.3. Waste Oil Recovery Plants and Number 10 Oil Producers:

It is estimated that approximately 20,000 tons of industrial waste oil is collected by recycling companies. Taking into account 2,000 tons of Category-1 waste motor oil legally delivered to these companies by PETDER, it is believed that it is not possible for these companies to maintain their commercial activities with these amounts. Examination of input raw materials and output

National Marker inspections to be carried out on roads under the collaboration of EMRA and the Ministry of Environment and Urbanization will immediately reveal whether the products used in the vehicles are legal or not.

products of these companies would reveal the unrecorded activities. It is necessary to carry out inspections on financial situations of recycling companies, sanctions should be imposed and these should be shared with the public.

5.4. Locations Where Number 10 Oil is Sold as Fuel Substitute:

Number 10 Oil is mainly sold at “nonmarket” locations such as truck/bus terminals, vehicle industrial sites and stores and open spaces at roadsides rather than legal fuel stations. Such locations should be regularly inspected, deterrent penal and financial sanctions should be imposed in case of fuel sale and these should be shared with the public.

5.5. Number 10 Oil Users:

Number 10 Oil is a legal lubricating product used for several purposes. However, it is illegal to use, sell and purchase this product as fuel. This illegal trade causes loss of lives and property as well as a significant tax loss and unfair competition.

Number 10 Oil is mainly used as fuel in buses, trucks, vans and minibuses in the transportation sector. Some of these activities involve carriage or hazardous goods and public transport. It caused

serious accidents and loss of lives in the past. Recently it has been claimed that it is also being used in heavy construction equipments and tractors.

It is necessary to carry out inspection on roads mainly targeting drivers of buses, service vehicles and minibuses. National Marker inspections to be carried out on roads under the collaboration of EMRA and the Ministry of Environment and Urbanization will immediately reveal whether the products used in the vehicles are legal or not.

It is believed that regular inspections to be carried out on main highways in Turkey, penal and financial sanctions to be imposed in case of nonconformity and sharing these with the public will prove beneficial to reduce the use of Number 10 Oil. Such inspections would also decrease illegal fuel sales.

6. Implementation of compulsory standards relating to refining and regeneration plants should be monitored.

6.1. Refining and regeneration plants in all developed countries are plants that use cutting-edge

Conformity of the products to TSE 13369 standard should be checked through on-site inspections examining the process they undergo.

technology and require high investment costs. Such plants, which are few in number, operate as refineries in these countries. However, such activities are carried out using simple methods and with temporary certificates of activity in Turkey. Such plants should conform to TS 13541 standard determining service standards. Compliance to the standard should be monitored with on-site inspections.

6.2. In Turkey, the product recovered at these plants is a product whose form, mainly color and odor, has been improved, rather than base oil and becomes subject to Number 10 Oil activities under different names such as sawing oil or molding oil. Conformity of such products to TSE 13369 standard should be checked through on-site inspections examining the process they undergo.

7. Re-refining plants similar to those in developed countries should be built in Turkey.

Lack of large corporate investments similar to those in developed countries where advanced technologies are used for base oil production from waste oil, technical incompetence of the players in the field and their engagement in illegal activities in Turkey have been serious factors impairing the development of the sector. PETDER believes that advanced technology refining plants to be built in Turkey will enable conversion of waste oil used in illicit activities into products with high added value.

8. COLLECTION AND TRANSPORTATION OF WASTE MOTOR OIL



Waste oil is transported from generation spots to the recovery or disposal facilities in transportation vehicles with specific equipment operated by trained transportation personnel in accordance with the guidelines set forth in legal regulations. "Compliance Certificate" granted by Turkish Standards Institute (TSE) and "Transportation License" granted by Provincial Directorates of Environment and Urbanization are obtained for waste oil transportation vehicles. The personnel employed in waste oil transportation vehicles are trained and certified at institutions authorized by the

Ministry of Transportation. Waste oil transportation vehicles are insured with Traffic Insurance, Car Insurance, Financial Liability Insurance and Hazardous Waste Transportation Insurance. PETDER employs high level health, safety and environment standards at each stage of the collection and transportation operation. Waste oil is transported in licensed vehicles with specific equipment in accordance with the "Regulation on the Transportation of Hazardous Goods by Road" that regulates international transportation of hazardous goods and the vehicles are tracked via satellite. The vehicles

are equipped with the necessary equipment to measure the volume of the waste oil received. The vehicles are equipped with a sufficient number of various link adapters that fit the tank/container links of the waste generators and recovery and disposal facilities. Waste motor oils are pumped out of the tanks or containers with the help of a fixed pump mounted on the vehicle. The current pumps are capable of suction up to 25 meters.

In accordance with general occupational safety guidelines, waste oil transportation vehicles are equipped with snow chains, fire extinguishers, spare tires, first aid supplies, chocks, safety straps, operation safety warning signs and drum trolleys in order to protect the environment and human health. The personnel in charge of waste oil collection wears fire resistant clothing used in oil industry, appropriate gloves, a helmet and work shoes when receiving and delivering waste oil. Drums are not carried with manpower; the vehicles are equipped with a drum trolley which can carry a drum with a capacity of 200 liters.



8.1 FILLING, TRANSPORTATION AND UNLOADING GUIDELINES

The principles and procedures to be followed during the reception, transportation and delivery of waste oil to the recovery and disposal facilities are crucial. National Waste Transportation Form must be filled in accurately when receiving the waste oil and the form must be signed by authorized persons at the facility receiving the waste oil. PETDER personnel show their ID cards, introduce themselves and submit the Waste Oil Transportation License and/or Authorization Certificate to the authorized person at the waste generator facility. The hoses are laid on the ground in a way that they will not be twisted and/or crushed by other vehicles; it is ensured that

the hoses are appropriate for the tanks, field and equipment of the waste oil generator and necessary measures are taken to avoid any spills or leakages to the vehicle and the field. Utmost attention is paid to the measurement of the amount of waste oil so that there will not be a difference between the amount of waste oil received from the waste oil generator and the amount of waste oil delivered to the recovery/disposal facility. The primary choice for measurement should be scales. In the case that there is not a scale and waste oil is being drained from tanks without measurement marks, the oil must go through a fluid meter to measure

the amount. Waste oil claimed to be previously categorized by the waste oil generator and whose analyses documents are presented to the driver and/or his assistant are kept in different tanks of the vehicle so that different categories of waste oil do not mix in the tank.

- ☛ The license of the waste oil transportation vehicle and documentation stating that collection is conducted on behalf of PETDER as an Authorized Institution shall be checked.
- ☛ A National Waste Transportation Form and a Delivery Receipt shall be issued for each delivery. National Waste Transportation Form is the most important official record and document of the disposal process.
- ☛ The amount of waste oil being handed over shall be measured using a fluid meter or scale.

8.2 TRAINING OF THE PERSONNEL

The training of the personnel to be employed in collection and transportation of waste oil is crucial in order to carry out collection and transportation of waste oil without causing any damage to the environment and human health. All field personnel employed in collection and transportation of waste oil (21 drivers, 15 driver assistants and 4 operation supervisors at the garage) are trained in the topics below making use of printed and visual materials:

Fire fighting	Using seat belts	Smoking ban
Regulation on the Control of Waste Oils	Prohibition of using mobile phones	Emergency management
Safe transportation of waste oil	Using a tachograph	Fatigue and lack of sleep
Driving rules	Driving over bridges and through tunnels	Parking rules
Guidelines for filling and unloading tanks	Speed and concentration	Causes of rollover
Using personal protective equipment	Cab setting	Road safety
Speed limits	Getting into and out of the cab	Tire pressure control
Daily inspections of vehicles	Driver fatigue	Waste oil material safety data sheet
Prohibition of alcohol and illegal drugs	Spills and the use of spill equipment	Clothing
Working hours	Not picking up passengers or cargo	Medication limits
Handling and lifting loads manually	Static electricity	

9. PETDER HEALTH, SAFETY AND ENVIRONMENT PRACTICES

The number of trips to waste generators within the scope of waste oil management activities in 2016 was 14,651. No occupational or traffic accidents resulting in death occurred during the operation.

Table 5: PETDER Waste Oil Management Project 2016 Health, Safety and Environment Report

	2012	2013	2014	2015	2016	Unit
Amount collected	18.545	18.715	17.750	17.801	19.185	Tons
Number of collection points	14.749	14.584	14.666	14.516	14.651	Number
Number of deliveries	1.943	1.969	1.725	1.377	1.373	Number
Total kilometers by waste oil tankers	907.339	949.161	997.380	1.092.254	987.238	Km
Total working hours in waste oil operations	87.658	84.931	66.283	107.282	95.745	ManxHour
Near Misses Reported	0	0	0	0	0	Number
Emergencies Reported	1	0	1	0	1	Number
Traffic accidents resulting in death	0	0	0	0	0	Number
Traffic accidents resulting in day loss	0	0	0	0	0	Number
Occupational accidents resulting in death	-	-	-	-	-	Lt
Occupational accidents resulting in day loss	-	0,18	-	-	0,02	%
Waste Oil Spill >50 Lt	-	32,95	-	-	4,48	Tons
Non-conforming waste received (water content of more than 10%, low calories etc.)	0,25	-	0,18	-	-	%
	10,6	-	32,95	-	-	Tons

9.1 CONTROL AND MONITORING

PETDER Waste Oil Transportation Vehicles are tracked via satellite and data received is recorded at the headquarters. Conformity of all activities to PETDER HSE Management System is monitored with/without informing the personnel. All vehicles were inspected in 2016.

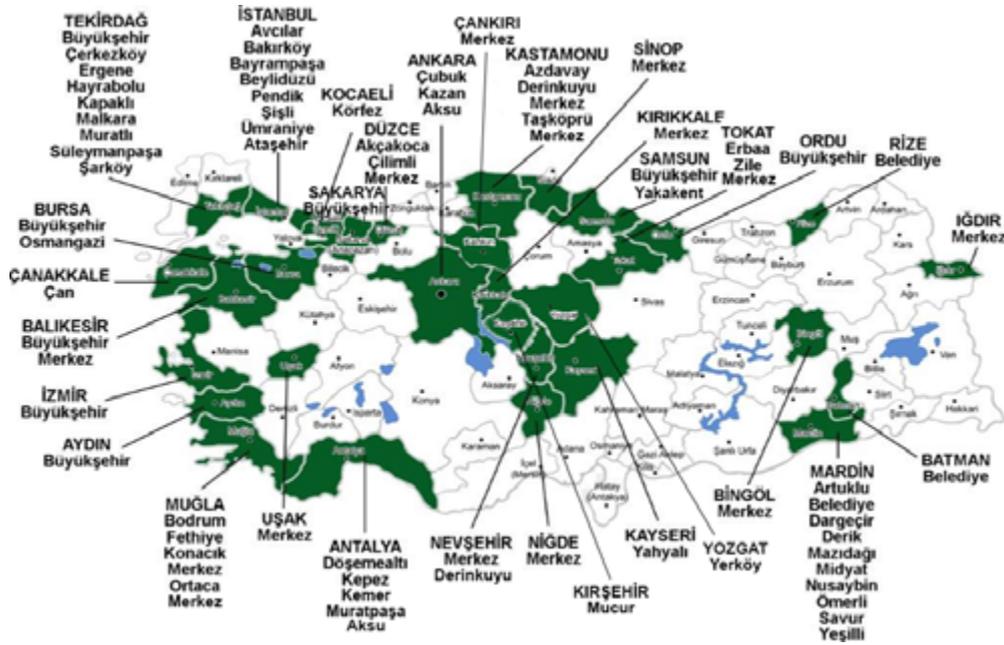
All the activities of the personnel while transporting, receiving and unloading wastes is secretly monitored and controlled with the vehicle tracking system implemented within the scope of Health, Safety and Environment Guidelines. A report is prepared after inspections and any non-conformity is eliminated through necessary warnings and notifications.

10. AGREEMENTS

In order to meet the motor oil producers', importers' and market suppliers' liabilities as per the Regulation on Control of Waste Oils, PETDER delivers the waste motor oils collected from motor oil changing spots with licensed waste oil collection vehicles to facilities licensed by the Ministry of Environment and Urbanization. All the activities within this process are conducted within the scope of the protocols signed. Negative clearance or exemption for the Participation and Delivery Protocols was received from the Competition Authority.

10.1 COOPERATION PROTOCOLS

In order to increase the amount of waste motor oil collected and to raise awareness, cooperation protocols are signed with the municipalities.



10.2 PARTICIPATION PROTOCOLS

Within the framework of Waste Oil Management Project, "Participation Protocols" valid for one year are signed between PETDER and motor oil producers, importers and vehicle importers who transfer their liabilities resulting from the Regulation to PETDER. The number of institutions with which a Participation Protocol was signed was 69 in 2016. The institutions with which a Participation Protocol has been signed are listed below.

Anadolu Araçlar
Anadolu Motor
Anadolu Isuzu
Arı Petrol
Atak Madeni Yağ
Aytemiz Akaryakıt
Balpet Petrol
Baylas Otomotiv
Bayraktar Otomotiv
Baytur Motorlu Vasıtalar
Belgin Madeni Yağlar
BMC Otomotiv
Borusan Makina
Borusan Otomotiv ithalat
Borusan Otomotiv
Pazarlama

BP
Çelik Motor
Delta Akaryakıt
Doğuş Otomotiv
Emek Petrol
Enerji Petrol
ENKA Pazarlama
Erman Madeni Yağ
Ford
Gema Madeni Yağlar
General Motors
Hattat Tarım
HMF Makine
Honda Türkiye
İlkerler Otomotiv

İsotlar Grup
John-Deere
Karat Güç Sistemleri
Kilerci Motorlu Araçlar
Koçak Petrol
Kompet
Link Kimya
Lukoil Lubricants
Mais Motorlu Araçlar
Mazda Motor
Mercedes-Benz
Milan Petrol
Mobil Oil
Motec Madeni Yağlar
Nissan Otomotiv

OMV Petrol Ofisi
Opet Fuchs
Özçınarlar Petrol
Petline
Petrofer
Petronas
Peugeot Otomotiv
Pınar-Al Kimya
Prista
Reksoil
Shell&Turcas Petrol
Sif
Suzuki Otomobil
Şampiyon Petrol
Tarımsan

Temsa Global
Total Oil Türkiye
Toyota Türkiye
Viscol Petrokimya
Volvo Group
Volvo Otomobil
Würth
Yamaha Motor
Yüce Auto

10.3 DELIVERY PROTOCOLS

The first criteria with respect to the facilities where waste oil is delivered within the scope of the Regulation on Control of Waste Oils is “license”. Facilities licensed by the Ministry of environment and Urbanization are under group 3. Within the scope of the project under the coordination of the Ministry, a 4th group of delivery of waste oil is carried out on export basis.

All deliveries to licensed facilities are made within the scope of contracts signed on an annual basis and negative clearance/exemption was received from the Competition Authority for these contracts.

- Category 1 waste motor oil is delivered to refining-regeneration facilities (26),
- Category 2 waste motor oil and oil category of which is unknown is delivered to cement and lime factories (1), (19)
- Category 3 waste motor oil and oil category of which is unknown is delivered to IZAYDAŞ,
- Category 2 waste motor oil and oil category of which is unknown is delivered to TAYRAS A.Ş. o n export basis.

PETDER

PETROLEUM INDUSTRY ASSOCIATION



DO NOT SELL DO NOT COMBUST DO NOT SPILL

- ▶ Using waste oil in fuel trade under the name of Number 10 Oil causes fires in vehicles resulting in loss of lives and property.
- ▶ Reuse of waste motor oils for various purposes, mixing into fuel or combustion in uncontrolled environments cause soil, air and water pollution.
- ▶ Mixing waste oil into fuel products illegally damages the economy.

Recovery of used oils prevents environmental pollution and waste of resources.



Store the waste oils generated at your facility in a way not posing a risk to the environment and human health and hand them over to THE ONLY AUTHORIZED INSTITUTION, PETDER.

**4444 924
YAG**

WASTE MOTOR OIL CALL CENTER



PETDER SMART PHONE APPLICATION

**PETDER Waste Motor Oil
Collection Vehicles' Number
Plates and Licenses***

Plate Number	License Number
41 R 4474	AY-41-03/22
41 R 4475	AY-41-03/23
41 R 4476	AY-41-03/24
41 R 4477	AY-41-03/27
41 R 4782	AY-41-03/12
41 R 4783	AY-41-03/13
41 R 4784	AY-41-03/14
41 R 4785	AY-41-03/25
41 R 4786	AY-41-03/26
41 R 0918	AY-41-03/28
41 R 8178	AY-41-03/17
41 F 0818	AY-41-03/19
41 R 1891	AY-41-03/20
41 R 6031	AY-41-03/15
41 F 3935	AY-41-03/21
41 F 3294	AY-41-03/11
41 F 8798	AY-41-03/16
41 B 3932	AY-41-03-33

*Please call 44 44 924 to contact PETDER for an updated list of number plates.

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PETROLEUM INDUSTRY ASSOCIATION

WASTE MOTOR OIL COMMUNICATION CHANNELS

Text



PETDER
Smart
Phone
Application

Call

44 44 924
11 11 YAG

Send
e-mail

info@petder.org.tr



REGULATION ON CONTROL OF WASTE OILS

Procedures and principles which apply from generation to disposal of waste motor oils that are harmful to the environment and human health have been set forth under the Regulation on Control of Waste Oils dated 30 July 2008 and numbered 26952.

Pursuant to the Regulation; it is prohibited for real and legal entities other than the producers or the Authorized Institution to collect waste motor oils.

Sale, combustion or disposal of waste oils in violation of the Regulation has been prohibited under the Regulation and any practice to the contrary shall result in imposition of punitive or administrative fines pursuant to the provisions under Articles 12 and 26 of the Environmental Law dated 9/8/1983 and numbered 2872. PETDER, as the ONLY authorized institution, provides free of charge service to all waste oil generation locations across Turkey within the scope of the project.





11. PUBLICITY, TRAINING AND AWARENESS RAISING ACTIVITIES

Within the framework of the project, waste generators are visited regularly, cooperation protocols are signed with local authorities, meetings and training programs are held and project activities are presented at fairs, conferences etc. making use of printed and visual means of communication in order to point out the adverse effects of waste motor oil on the environment and human health and to encourage waste generators' participation in the project.

11.1 EXHIBITIONS, SEMINARS AND MEETINGS

Within the framework of publicity, training and awareness raising activities in 2016, "One Barrel One Tree" posters were printed and distributed to be placed at spots where waste oil is received. Various leaflets in different formats have been distributed in order to inform waste generators. Petroleum Industry Association Waste Motor Oil Management Project Briefing and Consultation Meeting was held in Antalya on 18 May 2016 with the participation of representatives from the Ministry of Environment and Urbanization General Directorate for Environmental Management, PETDER and Provincial Directorates for Environment and Urbanization.

PETDER Briefing Meeting was held in Tekirdağ on 13 July 2016. Provincial Directorate of Environment and Urbanization provided waste generators with information on legislation and PETDER presented information on waste motor oil collection activities.

The Evaluation Meeting for PETDER (Petroleum Industry Association) Waste Motor Oil Collection Activities in 2015 was held at Istanbul Point Hotel on 1 December 2016. Besides the project participants, representatives of PETDER's business partners OMSAN and TAYSPED attended the meeting.

11.2 MAINTAINING RELATIONS WITH WASTE GENERATORS

Within the framework of Waste Management Project, waste generators are called by PETDER planning supervisors regularly to ask about the amount of their waste storage and to inform them. All information regarding these calls is recorded and filed. All the notifications from the waste generators in the form of phone calls, faxes, official letters and e-mails are also recorded and responded.

Waste generation areas are regularly visited by PETDER's licensed vehicles or vehicles are sent to these areas upon need based on the notification calls received.

11.3 ENHANCING COMMUNICATION CHANNELS

44 44 924
44 44 YAĞ

Within the scope of the Waste Motor Oil Management Project carried out by PETDER, the contact number, especially for waste motor oil generators and those who wish to get more information regarding the project, was changed as “44 44 924 – 44 44 YAG”. With the new number;

- Contact information will be easier to remember,
- Communication between waste oil generators and PETDER will be faster and easier,
- Organizational structure of Waste Motor Oil Management Project will be stronger.

PETDER SMART PHONE APPLICATION



PETDER Smart Phone Application developed by PETDER (Petroleum Industry Association) for the purpose of facilitating waste motor oil notifications is now available in AppStore and Google Play Store. The application aims to facilitate communication between waste motor oil generators and PETDER. Users who download the application to their smart phones will be able to;

- Send a notice through “Waste Oil Notification” page,
- Call PETDER by clicking on the phone number 44 44 924,
- View the plate and license numbers of licensed waste motor oil collection vehicles in their city,
- Be informed about announcements made by PETDER.

PETDER WEBSITE

PETDER website www.petder.org.tr is being renewed. The new website aims to provide up-to-date information and easier access to the content in order to ensure that users can reach the requested information in less time.

11.4 PUBLIC SERVICE ANNOUNCEMENT ON RISKS OF USING NUMBER 10 OIL AS FUEL SUBSTITUTE

The public service announcement prepared in 2015 by PETDER and the Ministry of Environment and Urbanization in order to raise public awareness on “Risks of Using Number 10 Oil as Fuel Substitute” was approved by the Radio and Television Supreme Council and began to be broadcast on television channels. The public service announcement is expected to raise public awareness on the subject matter and contribute to Turkish economy by helping to put an end to use of Number 10 Oil and to activities for preventing the damages it causes on property, and more importantly, on human life.



13. PETDER ONE BARREL ONE TREE PROJECT

1 Barrel 1 Tree Project started with the protocol signed with the Ministry of Environment and Urbanization on 3 September 2010. After the preparation of the visuals and publicity materials, the project was announced to the public with a press release on 6 September 2010 upon approval of the Ministry of Environment and Urbanization.

1 Barrel 1 Tree Project, initiated for the purpose of increasing environmental benefits of collecting waste motor oil by planting one tree for each barrel of waste motor oil collected from state institutions, aims to contribute to;

- ◆ keeping account of more waste motor oil with the support of state institutions,
- ◆ protecting the environment and human health,
- ◆ raising public awareness about the harms of waste motor oil,
- ◆ preventing illegal activities carried out under the name of Number 10 Oil.

The scope of the project is to plant one tree for each barrel of waste motor oil collected by providing free of charge service with licensed transportation vehicles to all governmental institutions across the country (state institutions, armed forces, municipalities) in cooperation with the Ministry of Environment and Urbanization and the Ministry of Forestry and Water Affairs.

Within the framework of this project financed by PETDER, “by planting one tree for each barrel of waste motor oil collected from state institutions”, 81,500 trees, 10,000 of which were planted in 2016, have been planted in three years in return for the waste oil collected. The number of trees planted is going to increase over the years.



FORESTATION AREAS

2016 - İSTANBUL

Roadside Forestation

Trees planted: Cypress, thuja

2014 - ANKARA

Roadside Forestation

Trees planted: Cypress, thuja

2013 - ANKARA

Roadside Forestation

Trees planted: Cypress, thuja

2012 - AFYONKARAHİSAR

Roadside Forestation

Trees planted: Cypress, thuja

2011 - ANKARA

Field Forestation

Trees planted: Acacia, ornamental plum, blue cypress, thuja



PETDER SAMRT PHONE APPLICATION

●●●○○ Turkcell LTE 13:52 %68

PETDER

PETROL SANAYİ DERNEĞİ



Mevzuat



Duyurular



Araçlar



Bize Ulaşın



Atık Motor Yağı Bildirimi

4444 ⁹²⁴
YAĞ

Çağrı Merkezi

i

Hakkımızda

Giriş yapmak için dokunun →

NOTES

A series of horizontal dotted lines for writing notes.

WASTE MOTOR OIL COMMUNICATION CHANNELS

Text



PETDER
Smart
Phone
Application

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44 44 924
YAG

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e-mail

info@petder.org.tr



PETDER

PETROLEUM INDUSTRY ASSOCIATION

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ExxonMobil

