



Facts About...

Discharge Monitoring Reports (DMR)
Permittees registered under the General Permit 10-MA

All required monitoring data is to be summarized and reported on EPA form 3320.1 supplied with your registration under the Maryland MDE of the Environment's (MDE) General Discharge Permit.

The MDE has developed the DMR in accordance with information you provided in the Notice of Intent (NOI). Pre-printed DMRs that contain information explained below will be provided with your registration letter. **It is important that you verify this information is correct.** If you believe the DMR for your facility is incorrect, please immediately contact the MDE at 410-537-3323.

PERMITTEE NAME/ADDRESS

This information at the top left-hand side of the form displays your business name, mailing address, facility name, and location.

PERMIT NUMBER

The (federal) permit number is displayed in the center of the form - MDG990110, where 0110 represents a unique 4-digit registration number that is assigned to your facility. Your state registration number assigned by the MDE is located in the upper right-hand corner of the form -10MM0110, which also contains the aforementioned unique 4-digit registration number again.

MONITORING PERIOD/DISCHARGE NUMBER

A separate DMR form has been printed for each monitoring period for wash water. If you are required to monitor for bilge water, one DMR was provided for you to copy and complete for each the monitoring periods. The date on the discharge monitoring form is recorded in the format **MM/DD/YYYY**.

Each discharge type will require a separate DMR to be completed. The box labeled "Discharge Type" indicates the discharge type that is to be reported on that form. Most marinas monitor only one discharge type, which usually discharges from only one location. However, if you are required to monitor more than one discharge type or if you discharge to more than one location you will need to complete and submit more than one DMR. This would be typical for a facility that discharges wash water and bilge water, separately from two outfalls (e.g., wash water from Outfall #001 and bilge water from Outfall #002).

PARAMETER

This information located in the first column on the left side of the form is pre-printed and will list the pollutants that are required to be monitored. This information contains unique identification numbers that are required to be included for reporting data to the EPA and should not be altered. The next column designates a row for "Sample Measurement" and a shaded row for "Permit Requirement".

Sample Measurement

Values will only need to be reported in the boxes located above words, letters, or numbers that are in a shaded box. If the shaded box is empty, no value is necessary.

Permit Requirement

The DMR(s) sent with your permit registration includes limits that apply to your facility, which were based upon the information submitted on your Notice of Intent (NOI). If the permit has established a numeric limit, the limit will appear within a shaded box that contains a mathematic description of the value to be reported. Below are various descriptions/abbreviations and the associated meaning:

"Req. Mon. MAXIMUM" you are required to monitor that parameter. The measurement shall be reported by providing the maximum value in the frequency range (i.e., during the monitoring period (six months), however many samples you take, you must report the maximum value of those samples).



“*Req. Mon. DAILY MX*” you are required to monitor that parameter. The measurement shall be reported by providing the maximum daily discharge value during the monitoring period.

“*MX MO AV*” you are required to monitor that parameter. The measurement shall be reported by providing the average monthly discharge concentration during the monitoring period. If, during the monitoring period (six months) the discharge occurs more than one month, from the monthly averages report the maximum monthly average.

“*MAXIMUM*” you are required to monitor that parameter. The measurement shall be reported by providing the highest value recorded during the monitoring period.

NOTE: In the event that during the monitoring period you have tested above the permit limit identified on the DMR, you must identify the number of instances that measured above the limit in the column identified by “No. Ex” (see below).

UNITS

All reporting must be consistent with the units pre-printed in the shaded row of the form. If the analytical results are not provided in these units, please provide the unit of measurement that was used to report the results of the sampling to ensure accurate reporting. Below are examples of relative units of measure:

gpd = gallons per day **mg/L** = milligrams per liter (*same as parts per million*)

NO. EX

This narrow column near the right-hand side of the page is used for indicating the number of times monitoring results were not within the limits for a given parameter (number of instances the sample was above the limit). This column is used only when there are effluent limits in effect.

FREQUENCY OF ANALYSIS

This column on the right-hand side of the form indicates how often sampling must be performed. The permit has established a frequency; however, if you sample more often than required, you must indicate this on the form. The MDE has established codes used to report the frequency of analysis.

- 1/30 denotes sampling that is performed once per month
- 02/SN denotes sampling that is performed twice per season
- 04/YR denotes sampling that is performed four times per year

SAMPLE TYPE

This column indicates the type of sample that must be taken and is established by the permit. Each type of sample is defined within the permit.

- "Grab sample" means an individual sample collected over a period of time not exceeding 15 minutes.
- “Estimated flow” - The permittee shall estimate flows and submit the following information with their discharge monitoring report each calendar year:
 - ❖ *a description of the method used to estimate flow at each outfall where flow measurement equipment is not present;*
 - ❖ *documentation appropriate to the method that supports the validity of the reported flow estimate. If actual measurements or observations are made, a description of typical sampling times, locations, and persons performing the measurements/observations should also be provided; and*
 - ❖ *a description of the factors (e.g. batch discharges, intermittent operation, etc.) which cause flow at the outfall to fluctuate significantly from the estimate provided.*



DISCHARGE TYPES

Marinas are required to complete and report a DMR for each discharge type in accordance with the schedules established within the permit as outlined below. All lab reports must be kept with a copy of the DMR on-site.

Bilge Water

DMR is to be completed once every six months and submitted twice yearly, postmarked no later than January 28th and July 28th.

- Discharges must be sampled and analyzed monthly.

Per Part IV - Section B.2 Bilge Water, facilities who collect bilge water from a vessel in order to prevent the discharge from entering into waters of the State, the wastewater must be treated prior to discharge into ground or surface waters of the State. At the point of discharge, the wastewater must also be sampled and meet the effluent limits identified in the permit.

PARAMETER	QUALITY OR CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	UNITS		
Oil & Grease	10	15	mg/L	1/Month	Grab
Flow		Report	gpd	1/Month	Estimated

The monitoring shall be completed once monthly and reported twice a year.

Remember, if you don't discharge bilge water during that six month period, check "No Discharge" in the top right-hand corner.

Shannon's Marina by the Bay, Bilge Water Log								
Year	Month	Total Montly Flow (gpm)	Days Discharging (d)	Average Daily Flow (GPD)	Oil & Grease (mg/L)		Lab date taken	
2012	September	No Discharge	0	0	****			
	October	No Discharge	0	0	****			
	November	No Discharge	0	0	****			
	December	No Discharge	0	0	****			
	DMR Reports Max:				0	0		
2013	January	No Discharge	0	0	****			
	February	No Discharge	0	0	****			
	March	5	1	5	6		3/20/2013	
	April	No Discharge	0	0	****			
	May	No Discharge	0	0	****			
	June	10	1	10	9		6/8/2013	
	DMR Reports:				10	7.5 Average		
						9 Max		
	July	No Discharge	0	0	0	****		
	August	No Discharge	0	0	0	****		
	September	No Discharge	0	0	0	****		
	October	7	1	7	8		10/1/2013	
	November	No Discharge	0	0	0	****		
December	No Discharge	0	0	0	****			
DMR Reports Max:				7	8			



This information displays your business name, mailing address, facility name, and location

Each discharge type will require a separate DMR to be completed.

This is your state registration number

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME: SHANNON'S FAKE MARINA
 ADDRESS: 1 RIVER STREET
 BAYVIEW, MD 21001
 FACILITY: SHANNON'S FAKE MARINA
 LOCATION: 1 RIVER STREET
 BAYVIEW, MD 21001

MDG990001	001-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
FROM 07/01/2014	TO 12/31/2014

DMR MAILING ZIP CODE: 21001
 MINOR: Wash Water
 10MA00001
 External Outfall: No Discharge

PARAMETER	QUANTITY OR LOADING	QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE			
Solids, total suspended	*****	*****	*****	*****			
00530 EG 0 Effluent Gross Oil & Grease	*****	*****	*****	50 MAXIMUM	mg/L	Four Per Year	
00556 EG 0 Effluent Gross Copper, total (as Cu)	*****	*****	*****	*****	*****	Four Per Year	
01042 EG 0 Effluent Gross Lead, total (as Pb)	*****	*****	*****	*****	*****	Twice Every Season	
01051 EG 0 Effluent Gross Zinc, total (as Zn)	*****	*****	*****	*****	*****	Twice Every Season	GRAB
01092 EG 0 Effluent Gross Flow	*****	*****	*****	*****	*****	*****	*****
74076 EG 0 Effluent Gross	*****	*****	*****	*****	*****	*****	*****

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	TELEPHONE	DATE
TYPED OR PRINTED	AREA Code NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Bottom Wash Water: Facilities operating more than fifteen weeks each year shall submit results twice yearly, postmarked no later than the 28th day of the month following the end of each monitoring mid-calendar year (January 28th and July 28th).

This federal permit number represents a unique 4-digit registration number assigned to your facility.

For a facility that discharges wash water and bilge water, separately from two outfalls - wash water from Outfall #001 and bilge water from Outfall #002

If you don't discharge the applicable discharge type during the six month monitoring period, check "No Discharge"

This must be completed by an authorized signatory as identified in PART III - Section C.2 of the permit



Wash Water

DMR is to be completed once every six months and submitted twice yearly, postmarked no later than January 28th and July 28th. Discharges must be analyzed as indicated by the following:

- Monthly - Flow shall be estimated
- Four times per year - Suspended solids and oil & grease (twice during the main washing season and twice during the spring/summer season)
- Two times per season (Sept - Dec) - Copper, Lead, and Zinc

The information from monitoring will be summarized in the corresponding twice yearly discharge monitoring report.

Per Part IV - Section B.1 *Boat Bottom Wash Water*, all wastewater generated from boat bottom washing activities shall be performed in a dedicated area. Beginning September 1, 2012, all wastewater generated from boat bottom washing activities shall be captured and directed to one or more locations for treatment and monitoring. At the point of discharge the wastewater must also be sampled and meet the effluent limits identified in the permit. (*excerpts from permit provided below*)

a. Conditions

iii.) Sampling Frequency. Metals shall be sampled twice during the main washing season (September - December). Suspended solids and oil & grease shall be sampled twice during the main washing season and twice during the spring/summer season for a total of four times a year.

iv.) Flow shall be estimated and recorded on a monthly basis.

b. Limits.

*i.) Monitoring is required beginning September 1, 2012. The numeric **limits** for total suspended solids (TSS) and oil & grease (O&G) take effect beginning March 1, 2013. Numeric **limits** for metals take effect March 1, 2015. Prior to the effective date of the limits, all wastewater shall continue to be treated using reasonable measures, such as straw dam filters, geotextiles, settling basins, or sand filters to remove visible solids.*

ii.) If wash water samples meet standards for at least three consecutive monitoring periods, the monitoring frequency may be reduced to annual for metals (during peak washing periods September – December). Permittees shall submit to the Department in writing a request for this decrease. Reduction in sampling will be permitted only upon written Department approval.

PARAMETER	QUALITY OR CONCENTRATION		FREQUENCY	SAMPLE TYPE
	MAXIMUM	UNITS		
Total Suspended Solids (TSS)	50	mg/L	4/year	Grab
Oil & Grease	15	mg/L	4/year	Grab
Copper	0.06	mg/L	2/season	Grab
Zinc	0.81	mg/L	2/season	Grab
Lead	0.08	mg/L	2/season	Grab
Flow	Report	gpd	Monthly	Estimated

Shannon's Marina by the Bay, Wash Water Log											
Year	Month	Total Montly Flow (gpm)	Days Discharging (d)	Average Daily Flow (GPD)	Solids (mg/L)	Oil & Grease (mg/L)	Copper (mg/L)	Zinc (mg/L)	Lead (mg/L)	Lab date taken	
2012	September	400	30	13	60	1	250.05	8.12	11.32	9/16/2012	
	October	700	31	23	55	10	418.15	64.02	26.72	10/29/2012	
	November	600	30	20							
	December	No Discharge	0	0	****	****	****	****	****		
	DMR Reports Max:				23	60	10	418.15	64.02	26.72	
2013	January	No Discharge	0	0	****	****	****	****	****		
	February	No Discharge	0	0	****	****	****	****	****		
	March	150	4	38	35	6				3/20/2013	
	April	200	6	33							
	May	250	8	31							
	June	150	5	30	38	4				6/8/2013	
	DMR Reports Max:				38	38	6				
	July	300	20	15							
	August	300	22	14							
	September	100	9	11							
	October	900	31	29	41	1	397.42	74.07	8.14	10/5/2013	
	November	850	28	30	33	2	483.75	57.54	10.12	11/16/2013	
	December	25	1	25							
DMR Reports Max:				30	41	2	483.75	74.07	10.12		
2014	January	No Discharge	0	0	****	****	****	****	****		
	February	No Discharge	0	0	****	****	****	****	****		
	March	No Discharge	0	0	****	****	****	****	****		
	April	375	15	25	18	2				4/20/2014	
	May	125	3	42							
	June	600	20	30	10	5				6/1/2014	
	DMR Reports Max:				42	18	5				
	July	315	13	24							
	August	100	5	20							
	September	800	30	27	48	8	183.94	16.17	5.07	9/2/2014	
	October	550	31	18							
	November	1000	30	33							
	December	85	4	21	15	2	18.01	2.81	1.01	12/1/2014	
DMR Reports Max:				33	48	8	183.94	16.17	5.07		
2015	January	No Discharge	0	0	****	****	****	****	****		
	February	No Discharge	0	0	****	****	****	****	****		
	March	10	1	10	19	2				3/20/2014	
	April	250	8	31							
	May	200	4	50	18	1				5/8/2015	
	June	400	14	29							
	DMR Reports Max:				50	19	2				
	July	800	22	36							
	August	600	24	25							
	September	915	30	31	37	1	0.05	0.91	0.07	9/17/2015	
	October	425	17	25							
	November	850	29	29	35	3	0.06	0.79	0.07	11/8/2015	
	December	No Discharge	0	0	****	****	****	****	****		
DMR Reports Max:				36	37	3	0.06	0.91	0.07		

Remember, if you don't discharge wash water during that six month period, check "No Discharge" in the top right corner.



ANALYSES

Permit holders are responsible for monitoring effluent discharges from boat bottom wash water and collected bilge water, and must send the results of that monitoring to Maryland Department of the Environment. All analyses shall be performed in accordance with 40 CFR 136.3. Flow may be estimated onsite.

The MDE strongly suggests that the permittee discuss these requirements with an environmental analytical laboratory that is familiar with wastewater methods as approved by EPA. In general, a laboratory should use "EPA approved", and any equipment should indicate "EPA approved" for the parameter(s) monitored.

❖ **Metals – Copper, Lead and Zinc**

The various methods used to determine the concentration of these metals identify the amount of energy released by either digesting the metal in a solution or igniting the sample. Only methods and apparatus recognized for testing of Copper (#22), Lead (#32) and Zinc (#75) as identified by 40 CFR 136, Table 1-B are acceptable.

❖ **Total Suspended Solids (TSS)**

Solids refer to matter suspended or dissolved in water or wastewater. Only methods and apparatus recognized for testing of residue – non-filterable (TSS) (#55) as identified by 40 CFR 136, Table 1-B are acceptable.

❖ **Oil and Grease**

Only methods and apparatus recognized for testing of oil and grease – total recoverable (#41) as identified by 40 CFR 136, Table 1-B are acceptable.

❖ **Sources for analytical methods**

Methods for the Determination of Metals in Environmental Samples," Supplement I, National Exposure Risk Laboratory-Cincinnati (NERL-CI), EPA/600/R-94/111, May 1994; and "Methods for the Determination of Inorganic Substances in Environmental Samples," NERL-CI, EPA/600/R-93/100, August, 1993. EPA Method 300.1 is available from <http://www.epa.gov/safewater/methods/pdfs/met300.pdf>

The MDE assembled this list from the best available information at the time of preparation. The Department makes no claim as to the list's completeness or to the quality of work performed by these laboratories. Inclusion on this list is not to be considered an endorsement by the State of Maryland.

Name and phone number	Address	City	State	Zip
Atlantic Coast Labs Inc 302-266-9121	630 Churchmans Rd	Newark	DE	19702
Microbac Laboratories Gascoyne Division Inc 410-633-1800	2101 Van DeMann St	Baltimore	MD	21224
Kappe Associates Inc 301-846-0200	100 Wormans mill Court	Frederick	MD	21701
EA Engineering Science and Technology 410-771-4950	15 Loveton Cir.	Sparks	MD	21152
Analytical laboratory Services 717-944-5541	978 Loucks Mill Rd	York	PA	17402
Maryland Spectral Services Inc. 410-247-7600	1500 Caton Ave	Baltimore	MD	21227
Severn Trent Labs 412-963-7058	301 Alpha Ridge Drive	Pittsburgh	PA	15138
EnviroCorp Laboratory 302-398-4313	14 Commerce Street	Harrington	DE	19952
Kemron Environmental Services 740-373-4071	156 Starlite Drive	Marietta	OH	45750
Dalare Associates 215-567-1953	217 S 24th Street	Philadelphia	PA	19103
Sturm Environmental 304-623-6549	P.O. Box 650	Bridgeport	WV	26330
Chesapeake Environmental Lab Inc 410-643-0800	P.O. Box 946	Stevensville	MD	21666
Lancaster Laboratories 717-656-2300	2425 New Holland Pike	Lancaster	PA	17601