

APPENDIX A

INDIANA CLEAN BOATER PLEDGE

This pledge is for recreational boaters who actively use best management practices to protect Indiana's aquatic resources and who encourage their passengers and other boaters to do the same.



A Good Idea!

Participating boaters will receive an Indiana Clean Boater sticker and be authorized to prominently display it on their watercraft.

This page was intentionally left blank.



INDIANA CLEAN BOATER PLEDGE

State Form 53581 (4-08)

Indiana Department of Natural Resources
Lake Michigan Coastal Program
Coastal Nonpoint Coordinator
1600 North 25 East
Chesterton, IN 46304
Telephone: (219) 921-0863

- INSTRUCTIONS:**
1. Read and complete this form.
 2. Mail the completed form to the above address.

As a recreational boater supportive of the Indiana Clean Marina Program, I pledge to be a steward of Indiana's waters. I will read the clean boater tip sheets and use the best management practices recommended therein to protect our aquatic resources. I will further ensure that all passengers aboard my watercraft follow these best management practices, and I will encourage other boaters to be stewards of Indiana's waters as well. For this pledge, I will receive and be authorized to prominently display an Indiana Clean Boater sticker on my watercraft.



As an Indiana Clean Boater, I pledge to:

- Keep our waters free of litter;
- Practice proper watercraft fueling;
- Help prevent the spread of aquatic invasive species;
- Recycle when possible;
- Maintain my watercraft in an environmentally-sensitive manner;
- Not operate my watercraft in sensitive, shallow water habitat areas; and
- Lead by example.

Printed Name of Recreational Boater		
Address (number and street)		
City	State	ZIP Code
Signature of Recreational Boater		Date (month, day, year)
Telephone Number	E-mail Address	



This page was intentionally left blank.

APPENDIX B

INDIANA CLEAN MARINA PLEDGE

This pledge is for marina/boatyard owners and managers who actively use best management practices to protect Indiana’s aquatic resources and who encourage their customers to do the same. The pledge represents their commitment to become a designated Indiana Clean Marina within a one-year time period.



A Good Idea!

Participating marinas that meet the criteria to become designated as an Indiana Clean Marina will receive an Indiana Clean Marina Program flag and be authorized to prominently display it at their facility (see pages 15-18).

This page was intentionally left blank.



INDIANA CLEAN MARINA PLEDGE

State Form 53582 (4-08)

Indiana Department of Natural Resources

Lake Michigan Coastal Program

Coastal Nonpoint Coordinator

1600 North 25 East

Chesterton, IN 46304

Telephone: (219) 921-0863

- INSTRUCTIONS:**
1. Read and complete this form.
 2. Mail the completed form to the above address.

The Indiana Clean Marina Program promotes and celebrates voluntary adoption of measures to prevent nonpoint source pollution from marinas and recreational boating and to prevent the spread of aquatic invasive species. Designated "Clean Marinas" are recognized as environmentally-responsible businesses.



As the first step toward achieving Clean Marina status and on behalf of:

Name of Marina or Boatyard		
Address (number and street)		
City	State	ZIP Code

I pledge to do my part to keep Indiana's waterways free of harmful chemicals, excess nutrients, and debris, and to implement practices that prevent the spread of aquatic invasive species. I will identify opportunities and implement practices to control nonpoint source pollution associated with:

- Storm Water Run-Off;
- Fueling Stations;
- Sewage Facilities;
- Solid Waste;
- Fish Waste;
- Liquid Materials;
- Petroleum Control;
- Boat Cleaning; and
- Boat Operation.

I commit to actively pursue full standing as an Indiana Clean Marina. Within one year of the date below, I will implement appropriate environmental stewardship practices and will apply to the Indiana Clean Marina Program for recognition as an Indiana Clean Marina.

Printed Name of Marina or Boatyard Owner		Date (month, day, year)
Signature of Marina or Boatyard Owner	Telephone Number	E-mail Address

Printed Name of Marina or Boatyard Manager		Date (month, day, year)
Signature of Marina or Boatyard Manager	Telephone Number	E-mail Address



Indiana Department of Environmental Management



This page was intentionally left blank.

APPENDIX C

INDIANA CLEAN MARINA PROGRAM DESIGNATION CHECKLIST

The following assessment checklist can be used by marina/boatyard owners and managers to determine if their facility qualifies for Indiana Clean Marina status.



A Good Idea!

The coastal nonpoint coordinator of the Lake Michigan Coastal Program is available to answer questions and provide technical assistance to help Indiana marinas achieve Clean Marina status. The telephone number is (219) 921-0863.

This page was intentionally left blank.



INDIANA CLEAN MARINA PROGRAM DESIGNATION CHECKLIST

State Form 53567 (4-08)

Indiana Department of Natural Resources
 Lake Michigan Coastal Program
 Coastal Nonpoint Coordinator
 1600 North 25 East
 Chesterton, IN 46304
 Telephone: (219) 921-0863

INSTRUCTIONS:

1. Use this checklist to conduct a self assessment of your facility and determine if your marina qualifies for Indiana Clean Marina status. The checklist and page numbers referenced with each question correspond to the *Indiana Clean Marina Guidebook* available at www.IN.gov/dnr/naturepreserve/4747.htm. Please refer to the guidebook as you answer the questions in the checklist.
2. Fill in the information requested below. Then proceed to pages 2-13. Each best management practice (BMP) is assigned a numeric value depending on environmental impact. No points are awarded for BMPs required by regulation or law. Some questions do not have a numeric value because they are lead-in questions for related questions that follow. For each question, determine if your facility is currently implementing that BMP. If the answer is yes, write down the available points for that BMP in the "Yes" column. If the answer is no, place a check in the "No" column for that BMP. The "Not Applicable" column is provided so options that do not apply to your marina will not count against you during scoring. For BMPs that do not apply to your marina, write down the available points for that BMP in the "Not Applicable" column. Sum up the points awarded under the "Yes" and "Not Applicable" columns. Record these values in the spaces provided for "Awarded Points" and "Not Applicable Points" at the end of each section (e.g., Storm Water Run-Off) and also in the Point Summary on page 13.
3. Complete the "Comments" section on pages 12-13 if you need to explain any answers or request clarification for any particular best management practice. Please reference the question number.
4. Use the equation at the bottom of page 13 to calculate your cumulative score. Then call the coastal nonpoint coordinator at (219) 921-0863 to discuss your results.

Numeric Values for Best Management Practices	
0	= Required by regulation or law
1	= Low direct impact in maintaining water quality
3	= Moderate impact in maintaining water quality
5	= High impact in maintaining water quality

NOTE: If you previously qualified for "Clean Marina" status and are currently applying for your annual redesignation, place a check in the "New Best Management Practice?" column for any new best management practices you have added since your previous designation. Mail a copy of the updated checklist and a letter stating your marina still meets the requirements included in the checklist to the above address.

Name of Facility		
Type of Facility <input type="checkbox"/> Marina (no boatyard) <input type="checkbox"/> Marina (with boatyard) <input type="checkbox"/> Other (e.g., boatyard)		
Name of Owner or Manager		
Address (number and street)		
City	State	ZIP Code
Telephone Number	E-mail Address	



Indiana Clean Marina Program Designation Checklist					
Storm Water Run-Off	Available Points	Yes	No	Not Applicable	New Best Management Practice?
1. Permits are required for Standard Industrial Code (SIC) 3732 and some SIC 4493 marinas. If your marina meets these requirements, do you have a National Pollutant Discharge Elimination System permit? See pages 33-38*.	0				
2. Do you allow boat hull maintenance at your marina? This includes services conducted by marina staff, outside contractors, and patrons. You cannot answer "Not Applicable." If "No," proceed to question 12.	No numeric value				
3. Do you have designated boat hull maintenance areas away from the water's edge or within a building? See pages 33-38*.	5				
4. Are these areas marked with signage or identified in marina rules for patron usage? See pages 33-38*.	1				
5. Are these areas located on impervious surfaces such as concrete or asphalt? See pages 33-38*.	3				
6. If work areas cannot be located indoors or on impervious surfaces, do you require the use of a tarp? See pages 33-38*.	1				
7. Do you offer/provide tarps to patrons for hull maintenance? See pages 33-38*.	1				

* **Indiana Clean Marina Guidebook**
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Storm Water Run-Off (continued)	Available Points	Yes	No	Not Applicable	New Best Management Practice?
8. Do you require enclosed spray booths or tarps for sand blasting and sanding that is done outdoors? See pages 33-38*.	3				
9. Do you offer/provide sanders equipped with vacuums to collect hull paint sandings? See pages 33-38*.	3				
10. Do you have a regular maintenance schedule to clean hull maintenance areas? See pages 33-38*.	3				
11. Do you provide patrons and contractors with a list of "yard rules?" See pages 33-38*.	1				
12. Do you have vegetated buffers between impervious surfaces and the marina basin? See pages 33-38*.	3				
13. Do you direct run-off from roofs or other impervious surfaces into vegetated areas? See pages 33-38*.	3				
14. Do you have any mechanical or treatment devices that treat storm water (e.g., filters, oil/water separators, etc.)? See pages 33-38*.	3				
15. Do you have practices in place to control pet waste? See page 47*.	5				
16. Do you discourage patrons from feeding geese, ducks, and sea-gulls at the marina? See page 48*.	5				
	Available Points	Awarded Points		Not Applicable Points	
	40				

* **Indiana Clean Marina Guidebook**
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Fueling Stations	Available Points	Yes	No	Not Applicable	New Best Management Practice?
17. A marina that has the capacity to store greater than an aggregate of 1,320 gallons of petroleum above ground or more than 42,000 gallons underground is required to have a spill prevention, control, and countermeasure (SPCC) plan. If your marina falls under these guidelines, do you have an SPCC plan? See pages 111-114*.	0				
18. If you are not legally required to have an SPCC plan under these guidelines, do you still have an SPCC plan or similar plan in place? See pages 111-114*.	5				
19. Are your fueling stations situated in such a way that an accidental spill can be easily contained? See pages 39-42*.	3				
20. Do you train staff in spill prevention, containment, and cleanup procedures? See pages 39-42*.	5				
21. Do you have spill containment equipment available at fuel docks? See pages 39-42*.	5				
22. Do you have oil absorbent pads available at the fuel dock to clean up small drips and spills? See pages 39-42*.	3				
23. Do you have special fueling docks for personal watercraft to help drivers refuel without spilling? See pages 39-42*.	5				

* **Indiana Clean Marina Guidebook**
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Fueling Stations (continued)	Available Points	Yes	No	Not Applicable	New Best Management Practice?
24. Do you require boaters fueling personal watercraft or other vessels at your marina to use a designated fueling station or upland location away from the water? See pages 39-42*.	3				
25. Do you regularly inspect, maintain, and replace fuel hoses, pipes and tanks for fueling stations as necessary? See pages 39-42*.	0				
26. Do you have signs at the fuel dock that explain how to prevent spills while fueling as well as spill reporting procedures? See pages 39-42*.	1				
	Available Points	Awarded Points		Not Applicable Points	
	30				

* *Indiana Clean Marina Guidebook*
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Sewage Facilities	Available Points	Yes	No	Not Applicable	New Best Management Practice?
27. A marina located on the state's navigable waters that can accommodate boats equipped with a marine sanitation device must provide pumpouts or enter into a binding agreement with another marina or similar facility along the waterway to provide pumpout services to your patrons. Can your marina accommodate boats equipped with marine sanitation devices? See pages 43-48*. You cannot answer "Not Applicable." If "Yes," please proceed to question 28. If "No," please proceed to question 33. If you are not legally required to implement this measure but are doing so, proceed to question 28.	0				
28. Do you have pumpout or dump stations available at your marina or a contractual agreement with another marina to provide these services to your patrons even though you are not legally required to? See pages 43-48*.	5				
29. Are the station locations well marked by signage and instructions for correct operation posted? See pages 43-48*.	1				
30. Does marina staff assist boaters with pumpout operation? See pages 43-48*.	3				
31. Do you have a regular maintenance schedule to keep pumpout stations clean and in service? See pages 43-48*.	5				

* *Indiana Clean Marina Guidebook*
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Sewage Facilities (continued)	Available Points	Yes	No	Not Applicable	New Best Management Practice?
32. Do you keep log sheets of pumpout station maintenance? See pages 43-48*.	5				
33. Do you provide clean, well-maintained public restrooms that are in convenient locations and well marked? See pages 43-48*.	5				
	Available Points	Awarded Points		Not Applicable Points	
	24				

Solid Waste	Available Points	Yes	No	Not Applicable	New Best Management Practice?
34. Do you provide trash receptacles in convenient locations for marina patrons? See pages 49-52*.	5				
35. Are the trash receptacles covered? See pages 49-52*.	3				
36. Are the trash receptacles inspected daily? See pages 49-52*.	3				
37. Do you have recycling facilities available for marina patrons? See pages 49-52*.	3				
38. Do you recycle winter storage shrink wrap? See pages 49-52*.	3				
39. Do you promote used fishing line collection or recycling? See pages 49-52*.	3				
	Available Points	Awarded Points		Not Applicable Points	
	20				

* *Indiana Clean Marina Guidebook*
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Fish Waste	Available Points	Yes	No	Not Applicable	New Best Management Practice?
40. Do you allow fish cleaning at the marina? You cannot answer "Not Applicable." If "No," proceed to question 44.	No numeric value				
41. Do you prohibit boaters from disposing fish waste in the marina basin? See pages 53-54*.	0				
42. Do you prohibit boaters from cleaning fish at the docks? See pages 53-54*.	3				
43. Do you have a designated fish cleaning station that is clearly marked? See pages 53-54*.	5				
	Available Points	Awarded Points		Not Applicable Points	
	8				

Liquid Materials	Available Points	Yes	No	Not Applicable	New Best Management Practice?
44. Do you allow boat maintenance (such as, but not limited to, changing of oil, antifreeze, etc.) at your marina? This includes services conducted by marina staff, outside contractors, and patrons. You cannot answer "Not Applicable." If "Yes," please continue to question 45. If "No," proceed to question 50.	No numeric value				
45. Do you have an emergency spill response plan? See pages 115-123*.	5				

* **Indiana Clean Marina Guidebook**
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Liquid Materials (continued)	Available Points	Yes	No	Not Applicable	New Best Management Practice?
46. Do you train employees in spill response? See pages 115-123*.	5				
47. Do you have and maintain appropriate storage areas for materials such as antifreeze, solvents, oil, and paints? See pages 55-57*.	5				
48. Do you recycle liquid materials? See pages 55-57*.	3				
49. Do you provide educational material to patrons and contractors, if applicable, on proper disposal of liquid materials? See pages 55-57*.	3				
	Available Points	Awarded Points		Not Applicable Points	
	21				

Petroleum Control	Available Points	Yes	No	Not Applicable	New Best Management Practice?
50. Do you prohibit the use of detergents to dissipate fuel spills on the water? See pages 59-60*.	3				
51. Do you provide educational materials to patrons that promote engine and bilge maintenance? See Appendix K on page 175*.	3				
	Available Points	Awarded Points		Not Applicable Points	
	6				

* *Indiana Clean Marina Guidebook*
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Boat Cleaning	Available Points	Yes	No	Not Applicable	New Best Management Practice?
52. Do you provide educational materials to patrons that promote environmentally-friendly boat cleaning practices? See pages 61-64*.	3				
53. Under the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit Program defines boat wash water as "processed water." Discharge of any processed water by a marina or boatyard is illegal nationwide without a formal permit from U.S. EPA or a state government. This permit requirement does not apply to boat owners who are cleaning their own boats, but it does apply to anyone who professionally cleans boats in a marina. If your marina meets these requirements, do you have an NPDES permit? See pages 61-64*.	0				
54. Do you have measures in place that reduce or prevent wastewater from pressure washing from entering waterways? See pages 61-64*.	5				
	Available Points	Awarded Points		Not Applicable Points	
	8				

* *Indiana Clean Marina Guidebook*
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Public Education	Available Points	Yes	No	Not Applicable	New Best Management Practice?
55. Do you post signs or utilize bulletins that address the best management practices outlined in the Indiana Clean Marina Guidebook to promote environmentally-friendly boating practices? See pages 65-68*.	3				
56. Do you actively distribute pamphlets, newsletters, or billing inserts to promote environmentally-friendly boating practices? See pages 65-68*.	3				
57. Do you provide educational materials and documented training opportunities to marina employees that promote environmentally-conscious work habits? See pages 65-68*.	5				
58. Do you insert language in marina contracts that promote compliance with marina best management practices? See pages 171-174*.	5				
59. Do you have best management practice agreements for outside contractors? See pages 171-174*.	5				
60. Are your storm drains marked with a "Dump No Waste" type message? See pages 65-68*.	5				
	Available Points	Awarded Points		Not Applicable Points	
	26				

* *Indiana Clean Marina Guidebook*
www.IN.gov/dnr/naturepreserve/4839.htm

Indiana Clean Marina Program Designation Checklist					
Boat Operation	Available Points	Yes	No	Not Applicable	New Best Management Practice?
61. Do you have any areas that are considered "no boating" or "no wake" zones or other restrictions to reduce sediment suspension from prop wash or destruction of shallow water habitat? See pages 69-70*.	5				
	Available Points	Awarded Points		Not Applicable Points	
	5				

Exotic & Nuisance Aquatic Species	Available Points	Yes	No	Not Applicable	New Best Management Practice?
62. Do you post signs or utilize bulletins to promote best management practices that can reduce the spread of aquatic invasive species? See pages 71-77*.	5				
63. Do you distribute pamphlets, newsletters, or billing inserts to promote best management practices that can reduce the spread of aquatic invasive species? See pages 71-77*.	5				
	Available Points	Awarded Points		Not Applicable Points	
	10				

Comments

* *Indiana Clean Marina Guidebook*
www.IN.gov/dnr/naturepreserve/4839.htm

Comments (continued)

Point Summary			
	Available Points	Awarded Points	Not Applicable Points
Storm Water Run-Off	40		
Fueling Stations	30		
Sewage Facilities	24		
Solid Waste	20		
Fish Waste	8		
Liquid Materials	21		
Petroleum Control	6		
Boat Cleaning	8		
Public Education	26		
Boat Operation	5		
Exotic & Nuisance Aquatic Species	10		
	Total Available Points	Total Awarded Points	Total Not Applicable Points
	198		

Equation for Calculating Your Cumulative Score
$\frac{\text{Total Awarded Points}}{(\text{Total Available Points} - \text{Total Not Applicable Points})} = \underline{\hspace{2cm}}$
Multiply by 100 = $\underline{\hspace{2cm}}$
Cumulative Score: $\underline{\hspace{2cm}}$

This page was intentionally left blank.

APPENDICES D – J



Appendix D	
Complying with the Hazardous Waste Rules.....	105
Appendix E	
Spill Prevention, Control & Countermeasure Plans	111
Appendix F	
Emergency Preparedness & Spill Response.....	115
Appendix G	
Hazardous Waste Streams.....	125
Appendix H	
Hazardous Waste Generator Status & How the Rules Apply to You.....	159
Appendix I	
Selecting a Waste Transporter & Recycling/Waste Management Company	163
Appendix J	
Sample Contract Language.....	171

This page was intentionally left blank.

APPENDIX D

Complying with the Hazardous Waste Rules

The Indiana Department of Environmental Management and the United States Environmental Protection Agency have created regulations that are designed to ensure that the generation, transportation, treatment, and disposal of hazardous wastes are conducted in a manner that protects human health and the environment.

This guidance will assist you in determining if you generate hazardous wastes and how to comply with the regulations as they apply to your operations.

Products that you purchase for use at your marina may contain hazardous materials. Hazardous materials are chemicals that are dangerous to human health and the environment. When these products are no longer of use to you and are being disposed of, they become hazardous wastes that may be regulated by IDEM and/or U.S. EPA.



Storage cabinets may contain hazardous materials.

In determining if the wastes you generate need to be managed as hazardous wastes, you will need to take the following into consideration.

- Is the material hazardous as defined by the Resource Conservation and Recovery Act (RCRA) under Title 40, Parts 260-262, of the Code of Federal Regulations (40 CFR 260-262)?
- What is your facility's generator status?
- Which regulations are you required to comply with, based on your generator status and the type and source of your waste material?

What is a Hazardous Waste?

There are a few steps that you must take in determining if your wastes are hazardous. You must first determine if what you generate is a "solid waste." For a waste to be hazardous it must first be a solid waste. A solid waste is defined as any material that will no longer be used for its original purpose or a material that must be reclaimed before reuse. Solid wastes can be solid, liquid or gas. You will need to look at the wastes you generate (e.g., oil, antifreeze, gasoline, solvents, cleaners, etc.) and determine whether they are solid wastes.

If you find that some of the wastes you generate meet the definition of a solid waste, then you need to see if they meet any of the definitions of a hazardous waste. Wastes can be hazardous if they are either defined by RCRA as a listed or characteristic waste, or if they are a mixture of a listed hazardous waste and other wastes.

RCRA Has Four Lists of Hazardous Wastes

- F-listed waste** (40 CFR 261.31):
 These wastes are generated from non-specific sources but were created from a specific activity. Marinas might generate one of the first five F-listed wastes, F001- F005, which deal with solvents used in cleaning and degreasing.
- P- and U-listed wastes** (40 CFR 261.33):
 P- and U-listed wastes are discarded or unused commercial chemical products, off-specification products, container residues and spill residues. Marinas may generate a P- or U-listed waste when disposing of unused solvents, algacides or other toxic chemicals.
- K-listed wastes** (40 CFR 261.32):
 K-listed wastes are generated from specific sources and from specific activities. It is very unlikely a marina would generate a K-listed waste.

If your waste is not a listed waste, you must then determine if your waste is characteristically hazardous. RCRA has defined four characteristics of hazardous wastes. You must conduct waste sampling and analysis, or apply generator knowledge of the process and of the materials used to produce the waste to determine if it exhibits any of the following four characteristics.

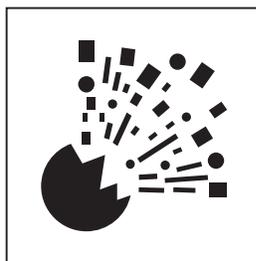
Ignitability



Corrosivity



Reactivity



Toxicity



Exempt Solid Wastes

Certain solid wastes, such as used oil destined for recycling, are excluded from the hazardous waste rules. Household wastes are also exempt. The exemptions to the hazardous waste regulations can be found at 40 CFR 261.4 and 261.6–261.9.

Four Characteristics of Hazardous Wastes

Ignitability
<p>A waste is ignitable if it is:</p> <ul style="list-style-type: none"> • A liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point of less than 60°C (140°F). • Not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard. • An ignitable compressed gas as defined in 40 CFR 261.21 (a)(3). • An oxidizer as defined in 40 CFR 261.21 (a)(4), such as chlorates, permanganates, inorganic peroxides or nitrates that yield oxygen readily to stimulate the combustion of organic matter. <p>RCRA classifies wastes that are ignitable as D001. Marinas may produce a D001 waste with disposal of paints, solvents, cleaner (flashpoint) chemicals such as nitrates, permanganates used as cleaner or in water treatment (oxidizer), or cylinders used for welding (compressed gas).</p>

Corrosivity
<p>A waste is corrosive if it is:</p> <ul style="list-style-type: none"> • Aqueous and has a pH of >12.5 (alkaline) or <2 (acidic). • A liquid and corrodes steel at a rate of more than one-fourth inch per year. <p>RCRA classifies wastes that are corrosive as D002. Marinas may produce a D002 waste with disposal of nonsolvent-based cleaners and paint strippers, water treatment chemicals and general cleaners and disinfectants.</p>

Reactivity
<p>A waste is reactive if:</p> <ul style="list-style-type: none"> • It is normally unstable and readily undergoes violent change without detonating; • It reacts violently with water; • It forms potentially explosive mixtures with water; • When mixed with water, it generates toxic gases, vapors or fumes of a quantity sufficient to present a danger to human health or the environment; • It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, and fumes in a quantity sufficient to present a danger to human health or the environment; • It is readily capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;

Reactivity (continued)
<ul style="list-style-type: none"> • It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or • It is a forbidden explosive as defined in 49 CFR 173.51, a Class A explosive as defined in 49 CFR 173.53, or a Class B explosive as defined in 49 CFR 173.88. <p>A solid waste that exhibits the characteristic of reactivity has U.S. EPA Hazardous Waste Number D003. Potential D003 waste streams that a marina could produce would be in the disposal of out-of-date chemicals for water treatment.</p>

Toxicity
<p>Toxic wastes are harmful or fatal when ingested or absorbed. When toxic wastes are disposed on land, contaminants may leach from the waste and pollute ground water or surface waters. Toxicity characteristic wastes are identified by concentration levels of contaminants that may be harmful to human health or the environment. This characteristic only identifies wastes which contain certain specified contaminants. Other toxic wastes are identified by listing them in the regulations.</p> <p>RCRA classifies wastes that are toxic as D004 through D043 with each characteristic having its own waste code (see table below and on page 109).</p>

Characteristic Wastes and Their U.S. EPA Hazardous Waste Numbers		
Heavy Metals	Pesticides	Organics
Arsenic (D004)	Chlordane (D020)	Benzene (D018)
Barium (D005)	Endrin (D012)	Carbon Tetrachloride (D019)
Cadmium (D006)	Heptachlor (D031)	Chlorobenzene (D021)
Chromium (D007)	Lindane (D013)	Chloroform (D022)
Lead (D008)	Methoxychlor (D014)	Cresols, o- (D023)
Mercury (D009)	Toxaphene (D015)	Cresols, m- (D024)
Selenium (D010)	2,4-D (D016)	Cresols, p- (D025)
Silver (D011)	2,4,5-TP [Silvex] (D017)	Cresols (D026)
		1,4- Dichlorobenzene (D027)
		1,2- Dichloroethane (D028)
		1,1- Dichloroethylene (D029)

Characteristic Wastes and Their U.S. EPA Hazardous Waste Numbers (continued)		
Heavy Metals	Pesticides	Organics
		2,4- Dinitrotoluene (D030)
		Hexachlorobenzene (D032)
		Hexachlorobutadiene (D033)
		Hexachloroethane (D034)
		Methyl Ethyl Ketone (D035)
		Nitrobenzene (D036)
		Pentachlorophenol (D037)
		Pyridine (D038)
		Tetrachloroethylene (D039)
		Trichloroethylene (D040)
		2,4,5-Trichlorophenol (D041)
		2,4,6-Trichlorophenol (D042)
		Vinyl Chloride (D043)

Mixing Wastes

If you mix your listed hazardous wastes with other characteristic wastes or other nonhazardous solids wastes, the entire mixture would become a listed hazardous waste. For this reason, it is very important to keep wastes segregated. Not only is it better for the environment, but it will help keep disposal costs as low as possible.

In determining if your waste is hazardous you may use generator knowledge and/or waste stream analysis. Material safety data sheets will help you determine what type of contaminants could be present. Sometimes after the chemical is used, it could be contaminated with other materials. It would then probably be more accurate to have the waste stream tested. Additional information on making a hazardous waste determination and other resources on the proper management of hazardous wastes are available on IDEM’s website at www.idem.IN.gov/cleanmarina.

Universal Wastes

Daily operations in the marina could also generate universal wastes. Universal wastes include nickel cadmium batteries, small sealed lead acid batteries, agricultural pesticides, mercury-containing devices (e.g., thermostats, barometers, and gauges), and lamps from electric lighting devices (e.g., fluorescent, high-intensity discharge, neon, mercury vapor, high-pressure sodium, and metal halide lamps). Universal wastes have fewer waste management rules that apply to them. For more information about the generation, storage, transportation, disposal and recycling of universal wastes, refer to IDEM's guidance document entitled "Universal Waste Rule" available on IDEM's website at www.IN.gov/idem/5026.htm.

Keep in mind that it is your responsibility to ensure that a proper hazardous waste determination is made for each solid waste. If you hire a consultant to perform waste determination activities, the facility is still liable for any incorrect determinations that may be made.

APPENDIX E

Spill Prevention, Control & Countermeasure Plans

The federal Clean Water Act requires facilities that store any kind of oil in certain volumes to prepare and implement spill prevention, control, and countermeasure (SPCC) plans to prevent the discharge of oil from a facility into navigable waters or adjoining shorelines. SPCC plans require that your facility have adequate containment, such as berms and dikes around aboveground fuel tanks, to protect the soil and water in the event of a spill (40 CFR 112.1). SPCC plans are federal requirements administered by the U.S. Environmental Protection Agency (U.S. EPA).



This well-marked spill equipment containment unit is for bigger spills and is housed in a mobile trailer that can be transported to the spill site. Smaller spill equipment containment units should be adjacent to the fuel dock, easily accessible and well marked.

Does Your Marina Require an SPCC Plan?

Your facility needs to develop an SPCC plan if it does any of the following:

- Stores oil above ground in any size tank(s) with a total aggregate volume over 1,320 gallons (containers of less than 55 gallons and/or permanently closed storage tanks are exempt from the total); or
- Stores oil below ground in any size tank(s) with at total aggregate volume of 42,000 gallons (except for tanks that are compliant with the state requirement for underground storage tanks); and
- Could reasonably be expected to discharge oil to a “navigable water of the United States” or “adjoining shorelines” considering a possible worst-case scenario. (This criterion applies to just about every marina in the state, since a facility cannot take into consideration any manmade impediments to the flow of oil.)

NOTE: “Oil” is defined in Section 311(a)(1) of the Clean Water Act as “oil of any kind or in any form including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.” The U.S. EPA interprets this definition to include crude oil, petroleum, and petroleum-refined products, as well as non-petroleum oils such as vegetable and animal oils.

NOTE: “Navigable waters” are defined in 40 CFR 112.2 of the Oil Pollution Act to include all navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972

amendments to the Federal Water Pollution Control Act (Public Law 92-500), and tributaries of such waters; interstate waters; intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

Do You Also Need a Facility Response Plan?

Onshore facilities that, because of their location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines shall prepare and submit a facility response plan to the regional administrator of U.S. EPA's Region 5 in accordance with 40 CFR 112.20.

Facilities should complete the Substantial Harm Criteria Certification found in Appendix C of 40 CFR 112 to determine if their facility would be subject to applicability of the substantial harm criteria.

What is an SPCC Plan?

An SPCC plan outlines a facility's oil containment systems and procedures to prevent an oil spill. It also outlines oil spill response and cleanup protocols. Each SPCC plan is site specific, but must address the following:

- Operating procedures that prevent oil spills;
- Control measures installed to prevent a spill from reaching the environment; and
- Countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches the environment.

Who Writes an SPCC Plan?

Preparation of the SPCC plan is the responsibility of the facility owner or operator, who may also be eligible to self-certify the SPCC plan if the facility meets the following eligibility criteria for a qualified facility:

1. Total above ground oil storage capacity of 10,000 U.S. gallons or less; and
2. In the three years prior to the date the SPCC plan is certified, the facility has had no single discharge of oil to navigable waters or adjoining shorelines exceeding 1,000 U.S. gallons, or no two discharges of oil to navigable waters or adjoining shorelines each exceeding 42 U.S. gallons within any 12-month period.

If the facility does not meet the above criteria, the SPCC plan must be certified by a licensed professional engineer (PE). By certifying the SPCC plan, the PE confirms that:

1. He is familiar with the requirements of the rule;
2. He or an agent has visited and examined the facility;

3. The SPCC plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of the rule;
4. Procedures for required inspections and testing have been established; and
5. The SPCC plan is adequate for the facility.

When self-certifying a facility's SPCC plan, the owner/operator makes a similar statement. See Section 112.6 of the rule for other qualified facility SPCC plan requirements.

Is There a Particular Form or Format for the SPCC Plan?

The U.S. EPA does not expect any two plans to look alike. However, at a minimum, all plans must include:

- Facility layout and drainage patterns;
- List of all oil storage tanks and areas;
- Quantities of oil that could be released, with predicted path of flow and flow rate;
- Procedures for receiving oil from the supplier, transfer of oil within the facility, end point uses of the oil, and waste oil disposal;
- Effects of a spill at the facility, fire hazards, employee evacuation, customer/neighbor considerations, press relations;
- Capacity of required secondary containment devices;
- Clean-up procedures, including use of in-house staff versus contractors;
- Notification list (i.e., name(s) and phone numbers of in-house management, remote management, fire and police, municipal, state and federal agencies requiring notification);
- Facility security for prevention of internal sabotage and external vandalism;
- Employee training for spill prevention, oil handling, and spill clean-up; and
- Occupational Safety and Health Administration considerations.

Where Should the SPCC Plan be Located?

REQUIRED: A copy of the SPCC plan must be maintained at any facility manned at least four hours per day. For remote locations, the SPCC plan should be filed at the nearest field office. A copy does not have to be filed with the U.S. EPA or any other agency unless it is a condition of a permit or license held by the facility. However, the SPCC plan must be available during normal business hours for review by a U.S. EPA inspector. The U.S. EPA requires that facilities submit a copy of the SPCC plan to U.S. EPA Region V if a single spill of greater than 1,000 gallons occurs or if two discharges of 42 gallons or more occurs within one year. All employees must be made aware of the SPCC plan. It is highly recommended that you post copies of the plan in plain view at oil storage locations.

Does an SPCC Plan Need to be Reviewed and/or Updated?

The plan has to be reviewed at least once every five years. You must keep records of these reviews. An example of such documentation is “I have completed review and evaluation of the SPCC plan for (name of facility) on (date), and will/will not amend the plan as a result (signature).”

The plan must be amended when:

- There are changes in facility design, construction, operation, or maintenance that materially affect the facility’s potential for the discharge of oil; or
- There are two or more spills in 12 months or one spill of 1,000 gallons.

A registered professional engineer must certify only technical changes to the SPCC plan. Nontechnical amendments include personnel or contact information changes.

Who Cares if My Facility Does Not Have an SPCC Plan?

Company management cares if your facility does not have an SPCC plan. Having measures in place to prevent spills is cost effective, since spill cleanup can be costly. However, when a plan is in place, spill cleanup can be more efficient, more effective and less costly than if there is no course of action.

The U.S. EPA also cares if your facility does not have an SPCC plan. The penalty for failure to have an SPCC plan can be up to \$27,500 per day of violation (up to a maximum of \$137,500) if an administrative action is filed. The U.S. EPA performs random, unannounced inspections of facilities suspected of needing an SPCC plan.

If There is a Spill, For What Could I be Held Responsible?

- Removing the material from public property, including cleaning highways, waterways, storm drains, bridge abutments, etc.
- Removing the material from private property, such as boat hulls and parking lots.
- Paying for natural resources damages (lost parking receipts at public beaches; lost revenues from fishing licenses; replacing killed fish, shellfish, and waterfowl).
- Paying for lost livelihood wages of fisherman and shell fisherman, devaluation of property for sale and private suits.
- Civil penalty for spilling into a water of the United States.
- Criminal penalty if you fail to notify the federal authorities. State agencies and contractors have no responsibility to notify for you.

For More Information

Visit U.S. EPA’s website at www.epa.gov/osweroe1/content/spcc for more information about the federal spill prevention, control and countermeasure program.

APPENDIX F

Emergency Preparedness & Spill Response

Accidents happen. The best way to lessen environmental impacts from spills and accidental releases is to be prepared.

Legal Requirements

Legal Requirements	
Spill Prevention, Control, and Countermeasure Plan	<p>You need to prepare a spill prevention, control, and countermeasure plan which outlines a facility-wide plan to prevent and clean up oil and gasoline spills (Clean Water Act, 40 CFR 112) if your facility stores gas or oil:</p> <ul style="list-style-type: none">• In an aggregate total of 1,320 gallons or more (not including containers of less than 55 gallons); or• In underground storage tanks (USTs) with a total capacity greater than 42,000 gallons (unless the tanks are in compliance with the state requirements for USTs). <p>For further information about spill prevention, control, and countermeasure plans, see Appendix E on pages 111-114.</p>
Hazardous Waste Contingency Plan	<p>A written hazardous waste contingency plan is required for large quantity generators. Specific information on this requirement can be found under 40 CFR 262.34 and 40 CFR 265 Subparts C and D. Small quantity generators need to comply with the emergency planning requirements found under 40 CFR 262.34(d)(5).</p>
National Fire Protection Association (NFPA)	<p>For marinas with service or filling stations, they must be managed in a manner to prevent spills, fires, and other dangers as required in NFPA's Automotive and Marine Service Station Code (NFPA 30A). These requirements are adopted locally. Check with your municipal fire marshal for local requirements.</p>
Storage of Hazardous Materials	<p>If you store materials in quantities above certain threshold amounts, you must report storage of that substance under the Emergency Planning and Community Right to Know Act of 1986 (see Appendix M on pages 197-202). Keep copies of material safety data sheets for all hazardous substances used at your facility.</p>
Emergency Action Plan	<p>If your facility has 10 or more employees, you must have a written emergency action plan. For marinas with 10 or fewer employees, this plan may be communicated verbally (29 CFR 1910.38).</p>

Best Management Practices

Best Management Practices	
Assess Potential Hazards	Note areas with potential hazards—manmade (e.g., fuel spills, fires, etc.) or natural (e.g., severe weather). Identify high danger or impact areas.
Spill Response Kits	<p>Store spill containment and control materials in locations close to areas identified as a potential hazard. The materials should be stored in containers that keep them clean and dry and the area should be well marked.</p> <p>Keep a list of equipment that is stored in each kit. The kits should be inspected on a set schedule and replenished immediately after use. The kits should contain:</p> <ul style="list-style-type: none"> • Absorbent pads and booms (small and large); • Empty sandbags; • Sewer pipe plugs; • Dry absorbent; • Square end shovels*; • A curtain boom (long enough to span the mouth of the marina and to encircle the largest vessel in moorage); • A hoe*; • Drain covers; • Fire extinguishers; and • A copy of the facility's spill contingency plan. <p>* Consider using nonsparking tools in areas where flammable liquids such as gasoline are stored.</p>
Emergency Response Plan	<p>Develop an emergency response plan that includes written procedures for addressing potential situations.</p> <p>Keep the plan in an accessible location.</p> <p>Update the plan as necessary (e.g., personnel, contact number changes, etc.).</p> <p>Review the emergency response plan with employees and train them in the use of response equipment.</p> <p>Share your emergency response plan with local emergency response groups (e.g., fire departments, hospitals, hazardous materials contractors).</p>

Best Management Practices *(continued)*

Best Management Practices	
<p>Emergency Response Plan (continued)</p>	<p>The emergency response plan should include:</p> <ul style="list-style-type: none"> • A site plan of the facility showing pipes, valves, structures, roads, hydrants, docks, power and fuel shutoffs, telephones, spill kits and locations of hazardous materials; A description of the type, amount, location and potential hazards of stored materials; • Roles and responsibilities of staff members; • A copy of the facility's spill contingency plan (a description of preplanned actions to be taken, based on likely threats, and what equipment should be used); • Stipulations for each planned response, including when additional or outside resources should be deployed; and • A list of emergency response phone numbers (see the Emergency Response Phone Directory on pages 121-122), including: <ul style="list-style-type: none"> • Fire and police • Facility owner • Harbor master • Spill response contractor • IDEM's Emergency Response Hotline • National Response Center Hotline
<p>Spill Contingency Plan</p>	<p>Develop a spill contingency plan even if you are not required by law. The spill contingency plan and emergency response plan can be combined into one document.</p> <p>The plan should include:</p> <ul style="list-style-type: none"> • Potential spill sources; • A list of oil and hazardous materials kept in the area; • Prevention measures such as security, inspection, training, containment and equipment; and • Emergency procedures for spills, including: <ul style="list-style-type: none"> • Contact information for entities who will initiate containment and cleanup; and • Instructions on state and federal agencies to contact, the type of information to provide and when such notification is required (see table on pages 118-120).
<p>Severe Weather Checklist</p>	<p>Develop an action checklist for severe weather. The checklist should include:</p> <ul style="list-style-type: none"> • Prepare to reduce environmental risks by securing waterside sewage pumpouts, dump stations and dumpsters. • Remove or secure objects that could blow or wash away. • Consider shutting off and locking out fuel pumps and oil tanks.

Notification Requirements

Law	Potential Situations	Agencies to Notify & When Notification is Required
<p>Water Quality Standards 327 IAC 2-6.1</p>	<ul style="list-style-type: none"> • Spills that damage the waters of the state so as to cause death or acute injury or illness to humans or animals. • Spills from a facility that has been notified in writing by a water utility that it is located in a delineated public water supply wellhead protection area. • Spills that damage waters of the state. • Spills to surface waters. • Spills of hazardous substances or extremely hazardous substances when the amount spilled exceeds 100 pounds or the reportable quantity, whichever is less. • Spills of petroleum of such quantity as to cause a sheen upon the waters. • Spills of objectionable substances. • Spills to soil beyond the facility boundary. • Spills to soil within the facility boundary. • Any spill for which a spill response has not been done. 	<p>Call IDEM's Emergency Response Spill Reporting Hotline at (888) 233-7745 within 2 hours.</p> <p>Follow-up as required by agency.</p>
<p>Clean Water Act 40 CFR 110.6</p>	<p>Oil discharge (film/sheen/discoloration) to water surface or shoreline, or violation of water quality standards.</p>	<p>The person in charge of the vessel or facility should call the National Response Center (federal spill reporting) at (800) 424-8802 <u>immediately</u>. If not practical, then call the U.S. Environmental Protection Agency's Region 5 24-hour emergency hotline at (312) 353-2318 or the U.S. Coast Guard's Marine Safety Office in Louisville, Kentucky at (502) 582-6825.</p> <p>Follow-up is not required.</p>

Notification Requirements *(continued)*

Law	Potential Situations	Agencies to Notify & When Notification is Required
<p>Clean Water Act 40 CFR 117.21</p>	<p>Discharge of hazardous substance (equal to or above the reportable quantity).</p>	<p>The person in charge of the vessel or facility should call the appropriate government agency immediately.</p> <p>Follow-up is not required.</p>
<p>Clean Water Act 40 CFR 122.41</p>	<p>Noncompliance which may endanger health and environment (above permit allowance).</p>	<p>The permittee should call the appropriate government agency within 24 hours.</p> <p>Follow-up is required in five days.</p>
<p>Comprehensive Environmental, Response, Compensation, and Liability Act 40 CFR 302.6(a)</p>	<p>Hazardous substance release (equal to or greater than the reportable quantity).</p>	<p>The person in charge of the vessel or facility should call the National Response Center (federal spill reporting) at (800) 424-8802 within fifteen minutes.</p> <p>Follow-up is not required.</p>
<p>Emergency Planning and Community Right-to-Know Act 40 CFR 355.40</p>	<p>Release of an extremely hazardous substance under the Superfund Amendments and Reauthorization Act or a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act equal to or greater than the reportable quantity.</p>	<p>The owner/operator should call the local emergency planning committee, the Indiana Emergency Response Commission at (317) 232-3830, or local emergency response personnel (911 in cases of transportation-related release) within fifteen minutes.</p> <p>Follow-up is required within seven calendar days.</p>

Notification Requirements *(continued)*

Law	Potential Situations	Agencies to Notify & When Notification is Required
<p>Resource Conservation and Recovery Act 40 CFR 262.34 40 CFR 263.30 40 CFR 264.56 40 CFR 264.196 40 CFR 265.56 40 CFR 265.196 40 CFR 270.14 40 CFR 270.30 40 CFR 273.17 40 CFR 273.37 40 CFR 273.54 40 CFR 279.43 40 CFR 279.53 40 CFR 280.50 40 CFR 280.52 40 CFR 280.53 40 CFR 280.60 40 CFR 280.61</p>	<p>Release, fire, or facility explosion that threatens health outside the facility.</p>	<p>The emergency coordinator or owner/operator should call the National Response Center (federal spill reporting) at (800) 424-8802, IDEM's emergency response coordinator at (888) 233-7745 (toll-free in Indiana) or (317) 233-7745, your local environmental agency (e.g., Hammond Dept. of Environmental Management) and the U.S. EPA regional administrator at (312) 353-2318 immediately.</p> <p>Follow-up varies from five to 30 days. Report to the on-scene coordinator, the National Response Center, and the U.S. EPA regional administrator.</p>
<p>Toxic Substance Control Act 40 CFR 761.120 40 CFR 761.125</p>	<p>Polychlorinated biphenyls (PCBs) spill (equal to or greater than 50 parts per million) with release to surface water/drinking water supplies/sewers/grazing lands, etc.</p>	<p>The person in charge should call the Pesticides and Toxics Compliance Section of U.S. EPA Region 5 at (312) 886-7061 within 24 hours.</p> <p>Follow-up as required by agency.</p>

A list of reportable quantities can be found at 40 CFR 302.4, and a list of extremely hazardous substances can be found at 40 CFR 355, Appendices A and B. Both lists are available on the Web at <http://ecfr.gpoaccess.gov>.

Source: www.epa.gov/region07/toxics/factsht.htm



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Emergency Response

www.idem.IN.gov

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue, Mail Code 66-30, Indianapolis, IN 46204

Phone: (317) 233-7745

Toll Free: (888) 233-7745

Contact numbers and evaluation techniques for environmental threats

PERSONAL SAFETY, ESPECIALLY YOURS, IS ALWAYS THE FIRST PRIORITY. Do not endanger yourself by entering hazardous environments. Stay upwind of spills and air releases. Never taste spilled materials. Never inhale smells to identify spills. Never touch unknown materials without proper Personal Protective Equipment. Be aware of highway, water and night-time safety issues. The burden of providing information and performing spill responses ALWAYS falls on the spiller, not you. Please let us know if you need additional guidance or do not feel comfortable being involved in a situation.

CONTACT NUMBERS

State Contacts:

-IDEM Emergency Response, spill reporting (24 hour)	888-233-7745
-IDEM, general information	800-451-6027
-IDEM air complaints	317-233-0178
-SEMA (State Emergency Management Agency)	800-669-7362
-ISFM (Indiana State Fire Marshall)	800-669-7362
-ISDH (Indiana State Dept. of Health)	317-233-1325
-IDNR NRHQ (Dept. Natural Resources, North Region)	765-473-9722
-IDNR SRHQ (Dept. Natural Resources, South Region)	812-837-9536
-OISC (Office of the Indiana State Chemist)	800-893-6637
-IOSHA (Indiana Occupational Safety and Health)	317-232-2693
-Public Safety Training Institute	317-232-6632
-Illinois Environmental Protection Agency	217-782-7860
-Michigan Department of Environmental Quality	800-292-4706
-Ohio Environmental Protection Agency	614-224-0946
-Kentucky Department of Environmental Protection	502-564-7815

Federal Contacts:

-National Response Center (federal spill reporting)	800-424-8802
- US EPA, Region V (24-hour emergency)	312-353-2318
-Agency for Toxic Substance and Disease Registry	404-639-0615
-US Coast Guard, Marine Safety Office, Louisville, KY	800-253-7465

Other Contacts:

-Holey Moley (for locating underground utilities)	800-382-5544
-Chemtrec (chemical data information)	800-424-9300

Quick Reference Information Sheet for assessing spills and threats to water

CONTACTS

1. **Spiller information:** name, address, contact numbers
2. **Land owner information:** (if different): name, address, contact numbers
3. **Spill location** (if different): facility name, address, directions, contact numbers
4. **Other contacts** for: lease holders, contractors, response agencies

CIRCUMSTANCES

5. **Spilled material/description.** Material Safety Data Sheet. What is it used for?
6. **Date and time** of spill (When found vs. when spill likely began)
7. **Cause** of spill.
8. Has the spill led to threats of **human** safety? Any evacuations? Any injuries?
9. Has the **release stopped**? Can it be stopped without compromising safety?
10. Was there an immediate or any **spill response**? Many fire and street departments initially dam or absorb spills with kitty litter or sand. Spillers are ultimately responsible for initiating and completing a spill response.

SPILL CHARACTERISTICS

11. Describe **area affected**, estimate square feet or miles of affected water.
12. Describe **amount spilled**, amount contained, capacity of containers or vessels.
13. **Amount recovered** or why no recovery (very few exceptions).

SPILLS TO WATER

14. Are there **surface waters** nearby or involved? Roadside ditches, streams, ponds?
15. Are the surface waters **standing, flowing, discharging**? To where?
16. Do you see **fish** or other animals in or near the water? Are they alive, stressed, dead?
17. Are there ditches, low areas, storm drains inlets, field tile risers to water?

SPILLS TO SOIL

18. Are there **sandy or gravelly native soils**, backfill areas, dry wells nearby/involved?
19. Are there **water wells, pipelines, phone lines, or utilities** that spills might follow?

SPILLS TO TILES, SEWERS, STORM DRAINS

20. For impacted **storm drains/storm sewers**, are there signs of the spilled material in **manholes or catchment basins**? Check where the storm drain exits into surface water. Can spilled materials be safely contained and collected from catchment basins or storm drain outlets before entering water?
21. For impacted **combined or sanitary sewer** systems, contact the wastewater utility. Will the material be safely treated? Will it upset or flow through the plant? Can they safely separate and contain it without hurting their plant? Are they experiencing any bypass events where spilled materials may discharge directly to water? Check bypass outfalls for spilled material. Call IDEM Emergency Response Section at 888-233-7745 immediately for upset plants. Non-emergency treatment plant questions may go to IDEM, Office of Water Management, Water Inspections Sections at 800-451-6027.

Hazardous Material Releases



REPORT ENVIRONMENTAL EMERGENCIES

Immediately!

24 hours-a-day, 7 days-a-week

(317) 233-7745

Toll-Free Nationwide:

(888) 233-7745

Fish Kills



Oil Spills



To Report Radiological Incidents:

Call Indiana State Department of Health at (317) 233-1325.



Indiana Department of Environmental Management

www.idem.IN.gov

For general IDEM information, call (800) 451-6027 (business hours)

This page was intentionally left blank.

APPENDIX G

Hazardous Waste Streams

Classification of Potential Hazardous Wastes Generated & Preferred Disposal Options for Potential Waste Streams

Waste	Preferred Disposal Option	Description/ Management Option	Hazardous Waste Status
Aerosols	<ul style="list-style-type: none"> Recycle empty cans if possible. 	Recycled or disposed (Emptied)	Not a hazardous waste
		Recycled or disposed (Not Emptied)	Make a hazardous waste determination and manage properly.
Antifreeze	<ul style="list-style-type: none"> Recycle. Hire a waste hauler to collect and dispose. Purchase an on-site recovery unit. 	Recycled	Make a hazardous waste determination and manage properly.
		Disposed	Make a hazardous waste determination and manage properly.
Batteries (Lead Acid)	<ul style="list-style-type: none"> Recycle under Title 40, Part 266.80 of the Code of Federal Register (40 CFR 266.80). 	Recycled	Not a hazardous waste
		Disposed	Make a hazardous waste determination and manage properly.
Batteries (Ni-Cad)	<ul style="list-style-type: none"> Recycle under Title 329, Article 3.1, Rule 16 of the Indiana Administrative Code (329 IAC 3.1-16) incorporating 40 CFR 273. 	Recycle as universal waste	Universal waste
		Disposed	Make a hazardous waste determination and manage properly.
Flares	<ul style="list-style-type: none"> Encourage boaters to keep on board as extras. Store in well marked, fire safe container. Use expired flares to demonstrate to boaters how they are used. Make sure to notify the Coast Guard and fire department first. Encourage boaters to take flares to a household hazardous waste collection site. 	Reused for intended purpose	Not a hazardous waste
		Disposed	Make a hazardous waste determination and manage properly.

Waste	Preferred Disposal Option	Description/ Management Option	Hazardous Waste Status
Fluorescent Light Tubes & Lamps (including compact fluorescent light bulbs)	<ul style="list-style-type: none"> Recycle under Title 329, Article 3.1, Rule 16 of the Indiana Administrative Code (329 IAC 3.1-16) incorporating Title 40, Part 273 of the Code of Federal Register (40 CFR 273). 	Recycle as universal waste	Not a hazardous waste
		Disposed	Make a hazardous waste determination and manage properly.
Fuel	<ul style="list-style-type: none"> Add stabilizer in winter and octane booster in spring. Mix with fresh fuel and reuse. Send for re-refining. 	Reused for intended purpose or re-refined	Not a hazardous waste
		Disposed	Make a hazardous waste determination and manage properly.
Mercury Switches	<ul style="list-style-type: none"> Collect and send for recycling. Encourage boaters to take the switches to a household hazardous waste collection site. 	Recycled as universal waste	Universal waste
		Disposed	Make a hazardous waste determination and manage properly.
Oil	<ul style="list-style-type: none"> Collect and send for recycling. Use waste oil for space heating in approved used oil burner. Encourage boaters to take their used oil to a household hazardous waste collection site. 	Recycled	Not a hazardous waste
		Disposed	Make a hazardous waste determination and manage properly.
Oil Filters	<ul style="list-style-type: none"> Drain oil and send oil and filter for recycling. 	Recycled (oil and filters)	Not a hazardous waste
		Disposed (oil and filters)	Make a hazardous waste determination and manage properly.

Waste	Preferred Disposal Option	Description/ Management Option	Hazardous Waste Status
Paint (Antifouling) & Debris	<ul style="list-style-type: none"> Switch to a long-lasting, low-toxicity paint. Encourage boaters to use paints that contain the least amount of toxins necessary. Discourage use of antifouling paints for fresh water boaters. 	Disposed	Make a hazardous waste determination and manage properly.
Paint Scraping & Sanding Waste	<ul style="list-style-type: none"> Conduct work away from the water's edge. 	Disposed	Make a hazardous waste determination and manage properly.
Pesticides	<ul style="list-style-type: none"> Reuse on site. Rinse container and use rinsate as makeup for next batch or spray out through sprayer. Encourage boaters to take unused containers to a household hazardous waste collection site. 	Disposal of rinsed containers	Not a hazardous waste
		Disposal of containers not rinsed or containing product	Make hazardous waste determination and manage properly.
Solvents & Cleaners (Petroleum Based)	<ul style="list-style-type: none"> Reused on site for other projects. Encourage boaters to take to a household hazardous waste collection site. 	Reused on site	Not a hazardous waste
		Disposed	Make a hazardous waste determination and manage properly.
Sorbents	<ul style="list-style-type: none"> Recycle under the used oil rule (if contaminated with used oil only). 	Recycled	Not a hazardous waste
		Disposed	Make a hazardous waste determination and manage properly.

This page was intentionally left blank.

The term used oil includes any petroleum-based or synthetic oil that has been used, such as engine oil, sludge from used oil tanks, transmission fluid, refrigeration oil, compressor oil, hydraulic fluid, etc.

As oil circulates through an engine and pumps, it may become contaminated with heavy metals, including lead. High concentrations of lead may make used oil a hazardous waste. Oil may also become contaminated through contact with gasoline, which could make the used oil a hazardous waste due to benzene contamination and/or flammability. In addition, oil can also become contaminated with products of incomplete combustion, which contain a number of known carcinogens.

Two environmental management options currently exist for facilities that generate used oil. The first option is to recycle used oil or burn it for energy recovery under the used oil rule. The second option is to dispose of used oil, following all applicable solid and hazardous waste rules. By managing used oil under the used oil rule (rather than under the solid and hazardous waste rules), the regulatory requirements will be lessened.



■ Option 1: Recycling or Burning for Energy Recovery (Used Oil Rule)

Complying with the used oil rule means that a facility does not have to manage used oil or the sludge from a used oil tank as a hazardous waste. Even if the used oil to be recycled or fuel blended is contaminated with a hazardous waste from product formulation or through its intended use (such as when contaminants mix with oil in the crankcase), the used oil is still regulated under the used oil rule rather than as a hazardous waste. In order to comply with the used oil rule, a facility must properly manage its used oil, and must either recycle used oil or burn it for energy recovery. Keep in mind that oil that is intentionally or accidentally mixed with a hazardous waste must be managed as a hazardous waste.

Note that under the used oil rule, both re-refining and burning of used oil for energy recovery are considered to be forms of recycling. Re-refining is the preferred method of managing used oil because it preserves our limited natural resources.

If a facility chooses to burn used oil in an onsite space heater, be aware that there are additional rules that must be followed under the used oil rule. Because small oil-burning space heaters are not as clean burning or as efficient as industrial furnaces, IDEM recommends that used oil be sent to a fuel blender rather than burning it on-site.

■ Option 2: Disposal (Solid and Hazardous Waste Rules)

Used oil that cannot be managed under the used oil rule (i.e., because of contamination with a hazardous waste or other material) is subject to all applicable solid and hazardous waste rules. Under the solid and hazardous waste rules, a facility must make a hazardous waste determination and manage used oil accordingly.

If a facility determines that its used oil is not a hazardous waste, it is still prohibited from being sent to a solid waste landfill because these landfills do not accept liquid waste or waste that contains free liquids (i.e., wastes containing liquids that will readily pour.) Therefore, used oil must be sent to a facility that is capable of handling liquid waste or that can solidify the waste prior to disposal.

What must be done to be in compliance?

Managing used oil may be done in a number of different ways. Listed below are the various options as well as the requirements for each.

If the used oil rule found under 329 IAC 13 is being followed, a facility must:

- Recycle used oil or burn self-generated used oil for energy recovery in an on-site space heater.
- Not mix used oil with hazardous wastes.
- Determine the halogen content of the used oil by using generator knowledge or by using a test kit for halogens (available from safety supply dealers.) If the used oil contains more than 1,000 parts per million total halogens, it is presumed to have been mixed with a hazardous waste and must be treated as a hazardous waste unless a facility can demonstrate that the source of the halogens was not from mixing a hazardous waste with used oil. To avoid having to manage used oil as a hazardous waste, do not add solvents or anything else to the used oil.
- Mark containers that hold used oil with the words “Used Oil.”

For off-site shipments, a facility must ensure that the transporter used has a U.S. EPA identification number. A facility may personally transport less than 55 gallons of its own used oil (or oil that has been collected through a household do-it-yourself collection program such as that described below) at any time to a used oil collection center or to a facility’s own aggregation point without obtaining a U.S. EPA ID number. Note that an aggregation point is basically a collection

center designed to accept small amounts of used oil and store it until enough is collected to ship it elsewhere for recycling. Aggregation points collect oil only from facilities run by the same owner/operator and from individuals.

If a facility is following the used oil rule and burning used oil on-site, it must:

- Follow all of the above-listed requirements.
- Have a used oil-fired space heater with a maximum capacity of not more than 500,000 Btu/hr.
- Vent combustion gases from the heater to the ambient air.
- Burn only used oil that a facility generates or used oil received from households that bring their used oil to the facility.

If a facility is following the solid and hazardous waste rules, it must:

- Determine if the used oil is a hazardous waste. If the oil is considered to be a hazardous waste, it must be managed according to the hazardous waste rules.

If used oil is not a hazardous waste, it still must be managed under IDEM's solid waste rules and sent to a facility that is permitted to accept this type of waste.



Used Oil Heater (Photo by Joe Exl, IDNR)

Regardless of whether a facility follows the used oil rule or the solid and hazardous waste rules, it must do the following:

- Clean up spills promptly.
- Keep oil storage containers in good condition. Drums used to store oil cannot be rusting or leaking.
- Develop a spill prevention, control and countermeasures plan if a facility stores oil in tanks or containers having an accumulative storage capacity in excess of 1,320 gallons or follow the underground storage tank regulations.
- Report oil spills.
- Not apply used oil as a dust suppressant.
- Not store used oil in surface impoundments (i.e., lagoons.)

A Good Idea!

Start a Do-It-Yourself (DIY) Oil Collection Program. The U.S. EPA estimates that millions of gallons of used oil are released into the environment each year by household do-it-yourselfers. By participating in a DIY oil collection program, a facility can help prevent oil waste from polluting the environment and can also demonstrate a facility's commitment to customer service and community. Prior to starting a DIY collection program, a facility must contact the Plan Review section of the Indiana Department of Homeland Security's Division of Fire and Building Safety at (317) 232-1431 to ensure that it is following applicable regulations. A facility must also follow the management standards of IDEM's used oil rule, accept DIY used oil, and send the DIY oil to a recycler or burn it for energy recovery.

Many used oil transporters will pick up used oil, including used oil that is collected from do-it-yourselfers, at no charge if a minimum volume of gallons of used oil is present per pickup. Some used oil transporters will also provide a double-walled oil storage tank and will train staff in the proper collection of DIY used oil. Contact a used oil transporter to request additional information about participating in a DIY oil collection program.

Some suggestions for implementing a used oil-recycling program include:

- Offer special reusable containers to do-it-yourselfers. Avoid accepting other used oil containers.
- Use a separate drum or tank for do-it-yourselfer oil to avoid potential contamination of the facility's used oil.
- Visually inspect used oil brought in by do-it-yourselfers. Do not accept suspicious materials.
- Have the do-it-yourselfers sign a log with a statement verifying the material is used oil only.
- Post a sign and provide written materials describing the program.
- Include this public service and any other environmental efforts in the facility's advertisements.

Guidance Documents

Visit IDEM's website at www.idem.IN.gov/cleanmarina for these guidance documents concerning used oil:

"Complying with Indiana's Used Oil Rule"

"Indiana Used Oil Handling Facilities and Transporters"

"Used Oil Filters"

When a used oil filter is removed from a vehicle, approximately one pint of oil may remain trapped in the filter. The used oil and sludge that remain in the filter may contain contaminants such as heavy metals that are picked up as the oil circulates through the engine. High concentrations of heavy metals may cause used filters to demonstrate hazardous waste characteristics, making the filters subject to hazardous waste regulations if the filters are not properly drained. There are several management options for handling used oil filters. The regulations a facility must follow depend on whether the used filters are properly drained and what is subsequently done with them (e.g., recycle, burn, discard.)



Used Oil Filters (Photo by Joe Exl, IDNR)

Properly hot-drained filters are exempt from Indiana’s hazardous waste regulations and may be disposed as solid waste. The term “hot drain” means to immediately drain the filter after it is removed from a vehicle that is at or near the engine’s operating temperature, while employing some additional means to facilitate draining such as puncturing, crushing, or dismantling.

Undrained filters may be managed under Indiana’s used oil rule if the filters are recycled or burned for energy recovery (see “Used Oil Management” on pages 129–132 for additional information on Indiana’s used oil rule). Undrained filters that are discarded are subject to all applicable solid and hazardous waste rules. Note that even if a facility’s used oil filters are not considered to be a hazardous waste, they still cannot be sent to a landfill because of the restrictions on wastes containing free liquids (liquids that will readily pour). Instead, the filters must be managed under IDEM’s solid waste rules and sent to a facility that is capable of handling liquid waste or that can solidify the waste prior to disposal.

For More Information

Appendix D – (pages 105-110)
Complying With the Hazardous Waste Rules (contains information about hazardous waste characteristics)

Large filters, such as those used in heavy-duty vehicles, may be terne-plated. Terne is an alloy of tin and lead, and it is used to strengthen the shells of larger oil filters. Terne-plated filters are exempt from hazardous waste rules only if they are recycled as a scrap metal. If they are disposed of, they are subject to a hazardous waste determination and, if found hazardous, must be managed in accordance with all applicable hazardous waste requirements.

What must be done to be in compliance?

As stated above, managing used oil filters may be done in a number of different ways. Listed below are the regulations that a facility must follow depending on the option that is used:

If a facility chooses to hot drain its used oil filters, it must:

- Puncture the filter anti-drain back valve or the filter dome end and hot drain the filters; or
- Perform any other equivalent hot draining method that will remove the used oil so that the filters contain no free liquids. Equivalent methods include crushing or dismantling the filters.
- Properly manage the oil drained from the filters (see “Used Oil Management” on pages 129-132 for more information).

If a facility does not hot drain filters, it must determine if the filters demonstrate hazardous waste characteristics. Filters that demonstrate hazardous waste characteristics are considered to be a hazardous waste and must be managed accordingly.



Draining an Oil Filter (Photo by Joe Exl, IDNR)

ANTIFREEZE

Under Indiana's hazardous waste rules, ethylene glycol and propylene glycol (i.e., virgin antifreeze) are not listed hazardous wastes. However, contact with cooling system parts may cause used antifreeze to become contaminated with heavy metals, such as lead, chromium and cadmium. This contamination may make the antifreeze a hazardous waste. Similarly, used antifreeze that is mixed with other wastes (during storage, etc.) may result in a mixture that is a hazardous waste. Each facility is responsible for making a hazardous waste determination on its used antifreeze. This determination can be based on analytical test results of the used antifreeze, or it may be based on the knowledge of the waste and how it was generated and managed.



Antifreeze storage container

IDEM has reviewed data on used antifreeze (both ethylene glycol and propylene glycol-based) from a broad range of vehicle types and ages. The results of this data indicate that used antifreeze does not appear to exhibit the characteristics of a hazardous waste. However, it is possible that a facility could generate used antifreeze that is a hazardous waste if the facility:

- Generates used antifreeze primarily from older vehicles (i.e., vehicles with metal radiators and lead soldered joints).
- Generates a type of antifreeze other than traditional ethylene glycol or propylene glycol-based antifreeze.
- Mismanages its used antifreeze after it has been drained from the vehicle (i.e., if the antifreeze is mixed with hazardous wastes or other contaminants).

For More Information

Visit IDEM's website at www.idem.IN.gov/cleanmarina for the agency's regulatory analysis of used antifreeze.

What must be done to be in compliance?

If a facility's used antifreeze is considered to be a hazardous waste, the facility must manage it according to the hazardous waste rules. Listed below are some of the proper management requirements for small and large quantity generators. The full listing of requirements can be found under 40 CFR 262. While conditionally exempt small quantity generators are not required to comply with 40 CFR 262 it is recommended that they follow the same management practices.

- Label all containers in accordance with the hazardous waste rules. Remember to clearly mark the words "HAZARDOUS WASTE," as well as the date the waste began to accumulate (or the date the container was completely filled if there is a satellite accumulation area onsite), on the used antifreeze container.
- Keep storage containers closed to prevent evaporation and spills.
- Conduct weekly inspections to ensure that the containers are in good condition. Look for leaks and for deterioration caused by corrosion or other factors. If a container leaks, put the hazardous waste or the leaking drum in another container.
- Keep monthly records of the amount of used antifreeze that is accumulated.
- Manifest drums of used antifreeze to a waste treatment, storage or disposal facility.
- Use only permitted waste transporters that have obtained a U.S. EPA identification number to transport drums of antifreeze off site.

If it is determined that a facility's used antifreeze is not a hazardous waste, the facility must:

- Never put antifreeze into the environment (i.e., onto the ground or into streams).
- Never pour antifreeze into any drains if a facility is on city water, unless the local wastewater treatment plant has been contacted in order to make sure it can handle such a discharge.
- Never discharge antifreeze to a septic system.

If a facility recycles antifreeze on-site, a hazardous waste determination must be made on the filters and sludge, or they can be treated as hazardous wastes. Because the contaminants are concentrated in the filter and/or sludge, it is likely that these may be hazardous wastes.

Can antifreeze be recycled?

Yes, antifreeze can be recycled; however, there are some things to keep in mind.

● Contracting with a Service Company to Recycle Used Antifreeze

Contracting this service to an outside company has certain advantages over purchasing recycling equipment. First, contracting this service does not require the initial capital expense of purchasing a recycling unit. Second, the filters and sludge that are generated during the recycling process may be hazardous wastes. If recycling on-site, a hazardous waste determination must be made and the waste must be managed accordingly. If this service is contracted to an outside company that recycles used antifreeze off-site, that company will be responsible for the hazardous waste generated during the recycling process.

● On-Site Recycling

Using an on-site mobile antifreeze recycling service involves having a recycling service visit the facility with a mobile coolant-recycling unit. Note that the facility will be responsible for any hazardous waste generated as a result of on-site antifreeze recycling. Spent filters and sludge may potentially be hazardous wastes.

● Off-Site Recycling

Another option is to send used antifreeze off-site for recycling with a reputable recycling company. Used antifreeze may be stored on-site for later pickup. Recycling companies usually require a minimum pickup quantity of 50-55 gallons and, in addition to picking up used antifreeze, can also supply recycled antifreeze.



A Good Idea!

Use propylene glycol instead of ethylene glycol-based antifreeze. Propylene glycol is less toxic and studies have suggested that it has the advantage of reduced internal engine corrosion potential.

This page was intentionally left blank.

Marina facility owners have several options when disposing of used lead acid batteries. The rules a facility must comply with are determined by the option chosen. These options are as follows:

■ Option 1: Reclamation/ Recycling

If a facility generates, collects, transports, stores or regenerates lead-acid batteries for reclamation purposes, the facility may be exempt from certain hazardous waste management requirements. However, if a facility is a battery reclaimer and stores batteries prior to reclamation, the facility is subject to many of the hazardous waste management requirements. (A material is “reclaimed” if it is processed to recover a usable product or if it is regenerated. Recovery of lead values from spent batteries is considered reclamation.) Specific requirements concerning the reclamation and recycling of used batteries is contained in 40 CFR 266.80, available on the Web at <http://ecfr.gpoaccess.gov/>.



Spent lead acid batteries should be stored in an area with secondary containment or in an area that provides a means to control and contain any battery acid spillage (Photo by Cathy Csatori, IDEM).

■ Option 2: Managed as Universal Waste

Universal wastes include nickel cadmium and small sealed lead-acid batteries, agricultural pesticides, thermostats and lights/lamps (e.g., fluorescent, high-intensity discharge, neon, mercury vapor, high pressure sodium and metal halide lamps). Used lead-acid batteries managed as universal waste have different, less stringent rules, than those managed as a hazardous waste. For more information about the generation, storage, transportation and disposal of universal wastes, refer to IDEM’s guidance document entitled, “Universal Waste Rule,” available on the Web at www.idem.IN.gov/cleanmarina.

■ Option 3: Managed as Hazardous Waste

Batteries that are not recycled/reclaimed or managed as a universal waste must be managed as hazardous waste in accordance with the hazardous waste rules. For additional information concerning the hazardous waste requirements, see Appendix D, “Complying With the Hazardous Waste Rules,” on pages 105-110.

If Your Facility Sells Batteries

Marinas or boatyards that sell batteries must comply with Indiana Code 13-20-16, available on the Web at www.IN.gov/legislative/ic/code/title13/ar20/ch16.html. This law includes but is not limited to:

- Posting signage in a location that can be seen by customers. The sign must be at least 8.5” by 11” in size and must indicate the following:

Recycle your used batteries.
Improper disposal of batteries is against the law.
It is illegal to put used motor vehicle batteries or other vehicle or boat batteries in the trash.
State law requires us to accept your used battery for recycling if you purchase a new battery from us.

- Ensuring that used batteries are properly managed and recycled by doing the following:
 - Properly store all spent lead-acid batteries in an area with secondary containment or in an area that provides a means to control and contain any battery acid spillage. If batteries are stored outdoors, the storage area must be curbed to contain leaks, and covered to prevent snow and rain from entering.
 - Within 90 days from the date the spent lead-acid battery was received, the battery must be transferred:
 - To a wholesaler or to an agent of a wholesaler;
 - To a manufacturer of lead acid batteries;
 - To a facility that recycles lead acid batteries or collects lead acid batteries for delivery to a recycling facility; or
 - To a facility operated as a secondary lead smelter under a valid permit issued by the state in which it is located or by U.S. EPA.



A Good Idea!

Storing batteries on a wire shelf with plastic spill trays placed below the shelf will allow easy inspection of all batteries for damage and will also contain any leaking battery acid. By storing batteries in this manner, it can be readily determined which battery is leaking. Acid collected from the spill tray can be returned to a non-leaking battery that will be sent off-site for reclaiming. Another way to store batteries is to utilize a U.S. EPA-approved storage box.

FLUORESCENT LIGHT TUBES & HIGH INTENSITY DISCHARGE LAMPS (does not include halogen lamps)

Historically, fluorescent tubes and lamps, including compact fluorescent light bulbs, contained a sufficient amount of mercury to make them a hazardous waste when disposed. Some new tubes and lamps are now marketed as containing a reduced amount of mercury, presumably making them a non-hazardous waste when disposed. However, it remains the generator's responsibility to ensure the correct hazardous waste determination is made and to manage the waste accordingly. If a facility is considering purchasing a new



Marina operators should conduct a hazardous waste determination on fluorescent bulbs used at their facility.

type of tube/lamp that is marketed as a nonhazardous waste when disposed, it should request the analytical test results for the product (i.e., toxicity characteristic leaching procedure, otherwise referred to as TCLP) from the vendor. Ask the vendor to explain the TCLP results, or contact IDEM's Office of Land Quality at (317) 308-3103 for assistance.

If the used tubes/lamps are considered to be a hazardous waste, there are two management options for handling waste tubes and lamps—recycle or dispose of them under the universal waste rule, or dispose of them under the hazardous waste rules.

■ Option 1: Recycling or Disposal (Universal Waste Rule)

The universal waste rule found under 326 IAC 3.1-16 is a modification of the hazardous waste rules and is designed to reduce regulatory requirements by promoting environmentally-sound recycling and disposal practices. In addition to being easier for businesses to comply with, handling used tubes and lamps under the Universal Waste Rule also reduces the environmental impact associated with disposal under the hazardous waste rules. For more information on universal wastes, refer to IDEM's guidance document entitled, "Universal Waste Rule." This document is available on IDEM's website at www.idem.IN.gov/cleanmarina.

FLUORESCENT LIGHT TUBES & HIGH INTENSITY DISCHARGE LAMPS (does not include halogen lamps)

■ Option 2: Disposal (Hazardous Waste Rules)

The second option is to manage used tubes and lamps under the hazardous waste rules. For more information, see Appendix D, “Complying With the Hazardous Waste Rules,” on pages 105-110. Note that discarded tubes and lamps are not counted in determining generator status provided the tubes are shipped off-site for recycling as a universal waste. If used tubes and lamps are thrown in the trash, their total weight must be added to the monthly record for hazardous waste generation.

What must be done to be in compliance?

Listed below are the rules that must be followed depending upon how a facility manages its used tubes and lamps. Regardless of whether a facility follows the universal waste rule or the solid and hazardous waste rules, it must:

- Educate employees on proper handling and emergency procedures associated with the waste tubes/lamps.
- Contain all releases of waste and residues.
- Make a hazardous waste determination on used tubes and lamps and manage them accordingly.

If used tubes and lamps are managed under the universal waste rule, a facility must:

- Package both unbroken and broken tubes/lamps to prevent breakage and a release of contaminants; lamps managed under the universal waste rule may not be intentionally crushed or broken.
- Label the tubes/lamps or the containers holding them with the words “Universal Waste Lamps” or “Waste Lamps” or “Used Lamps” or any other words that accurately identify the universal waste lamps.
- Have used tubes and lamps transported to a universal waste collection center. Note that under the universal waste rule, it is not required that used tubes/lamps be manifested.
- Not accumulate and store used tubes/lamps for longer than a one-year period.

If used tubes and lamps are managed as a hazardous waste, the hazardous waste rules must be followed.

Mercury can be found in bilge pumps and some switches on marine craft and as a vapor in high intensity discharge lamps. Mercury is a highly toxic substance. The amount of mercury in one bilge pump switch (approximately one gram) can contaminate a 20-acre lake to the point where the fish should not be eaten. There is typically enough mercury in these switches to make them a hazardous waste when disposed.



Boaters and marina operators should consult the manufacturer of their bilge pump switches to determine if they contain mercury (Photo by Joe Exl, IDNR).

There are two management options for handling used mercury switches from bilge pumps—recycle or dispose of them under the universal waste rule, or dispose of them under the hazardous waste rules.

■ Option 1: Recycling or Disposal (Universal Waste Rule)

The universal waste rule found under 326 IAC 3.1-16 is a modification of the hazardous waste rules and is designed to reduce regulatory requirements by promoting environmentally-sound recycling and disposal practices. In addition to being easier for businesses to comply with, handling used mercury switches under the Universal Waste Rule also reduces the environmental impact associated with disposal under the hazardous waste rules. For more information on universal wastes, refer to IDEM’s guidance document entitled, “Universal Waste Rule.” This document is available on IDEM’s website at www.idem.IN.gov/cleanmarina.

■ Option 2: Disposal (Hazardous Waste Rules)

The second option is to manage used mercury switches under the hazardous waste rules. For more information, see Appendix D, “Complying With the Hazardous Waste Rules,” on pages 105-110. Note that discarded mercury switches are not counted in determining generator status provided the switches are shipped off-site for recycling as a universal waste.

What must be done to be in compliance?

Listed below are the rules that must be followed depending upon how a facility manages its used mercury switches. Regardless of whether a facility follows the universal waste rule or the solid and hazardous waste rules, it must:

- Educate employees on proper handling and emergency procedures associated with the used switches.
- Contain all releases of waste and residues.
- Make a hazardous waste determination on used switches and manage them accordingly.

If used switches are managed under the universal waste rule, a facility must:

- Package the switches/pumps to prevent breakage and a release of contaminants.
- Label the used switches or the containers holding them with the words “Universal Waste–Mercury-Containing Equipment,” “Waste Mercury-Containing Equipment” or “Used Mercury-Containing Equipment” or other words that accurately identify the universal waste mercury-containing equipment (including wording specific to universal waste thermostats as required in the original rule).
- Have used switches transported to a universal waste collection center. Note that under the Universal Waste Rule, it is not required that used switches be manifested.
- Not accumulate and store used switches for longer than a one-year period.

If used switches are managed as a hazardous waste, the hazardous waste rules must be followed.



A Good Idea!

Recycling your mercury switches will help to ensure that the mercury contained in the switches will be handled in the most environmentally-responsible way possible.

FUEL & FUEL FILTERS

Gasoline, diesel fuel, fuel filters, as well as used wipes and sorbents that are contaminated with gasoline or diesel may be subject to IDEM requirements.

What must be done to be in compliance?

Listed below are the management responsibilities that must be followed when managing fuel and fuel filters:

● Fuel

Manage waste fuel in one of the following manners:

- Reuse the fuel if it is not contaminated or
- Make a hazardous waste determination and send it to a re-refiner, fuel blender or a hazardous waste facility.

● Fuel Filters

Manage waste fuel filters in one of the following manners:

- Make a hazardous waste determination on fuel filters that contain gasoline.
- Drain the residual fuel from the filter, collecting any liquid for reclamation or reuse.



Fuel Filter (Photo by Joe Exl, IDNR)

This page was intentionally left blank.

Hull paints can contain heavy metals and other toxins. Scraping and sanding the paint can produce hazardous wastes. Even though the paint wastes may not be hazardous waste according to the Resource Conservation and Recovery Act, they may still be hazardous to the environment. Paints that contain zinc or copper compounds can harm aquatic life. Paint scrapings and debris that are mixed with other wastes (during maintenance, storage, etc.) may result in a mixture that is a hazardous waste. Each facility is responsible for making a hazardous waste determination on its used paint waste. This determination can be based on analytical test results of the debris, or it may be based on the knowledge of the waste and how it was generated and managed.



To minimize the spread of the debris, dust and paint chips, try to do all work in a covered building (Source: Jay Tanski, New York Sea Grant).

For both hazardous and nonhazardous debris, trash, sanding dust and paint chips, cleanup of the area should be done immediately following any maintenance or repair activity. The work area should never be hosed down unless the area is diked and the water is collected for treatment or discharged to the local publicly owned treatment works provided that the treatment plant has agreed to this activity.

What must be done to be in compliance?

If a facility's hull debris is considered to be a hazardous waste, the facility must manage it according to the hazardous waste rules. Listed below are some of the proper management requirements for small and large quantity generators. The full listing of requirements can be found under 40 CFR 262. While conditionally exempt small quantity generators are not required to comply with 40 CFR 262, it is recommended that they follow the same management practices.

- Label all containers in accordance with the hazardous waste rules. Remember to clearly mark the words "HAZARDOUS WASTE," as well as the date the waste began to accumulate (or the date the container was completely filled if there is a satellite accumulation area on site), on the waste container.
- Keep storage containers closed when not adding or removing materials to prevent spills.

- Conduct weekly inspections to ensure that the containers are in good condition.
- Look for leaks and for deterioration caused by corrosion or other factors. If a container leaks, put the hazardous waste or the leaking drum in another container.
- Keep monthly records of the amount of waste that is accumulated.
- Manifest drums of waste to a waste treatment, storage or disposal facility.
- Use only permitted waste transporters that have obtained a U.S. EPA identification number to transport drums of waste off site.
- Do not store waste for longer than the allotted time for your generator status.

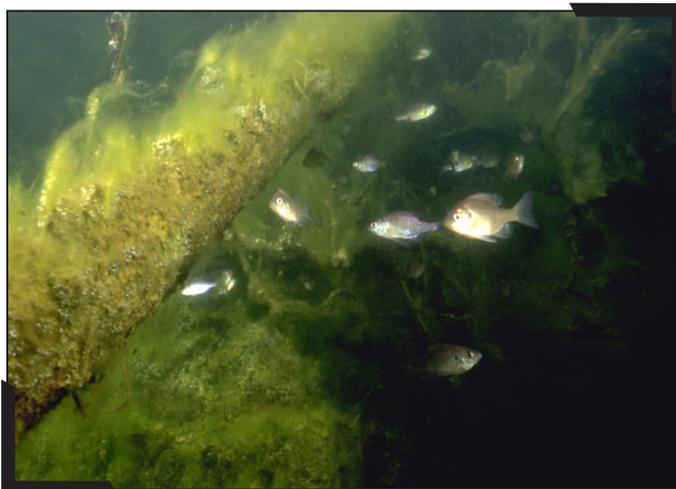
If it is determined that a facility's waste hull debris is not a hazardous waste, the facility must collect the paint chips and debris and place them in a nonleaking, covered dumpster.



A Good Idea!

To minimize the spread of the debris, dust and paint chips, try to do all work in a covered building. If a building is not available, limit work to days with little or no wind. Work over impervious surfaces and place plastic tarps under the work area for easy sweeping and disposal. If work must be done during windy days, construct a temporary structure of plastic sheeting. Try to vacuum the work area. Use or offer for use a dustless or vacuum sander when sanding.

Antifouling paints have been used on marine craft to kill organisms that attempt to attach to the painted surface. The paints contain copper, copper compounds, or tributyl tin compounds. By design, antifouling paints are toxic to marine life. These metals can be adsorbed by fish. Tributyl tin in levels as low as a few parts per trillion has been shown to cause abnormal development in shellfish. The toxins from the antifouling paints can enter into the environment from spillage, sanding, sand blasting or scraping. Paint chips left on the ground can migrate to the water via storm water run-off. The toxins can be passed up the food chain in increasing concentration levels through a process known as bioaccumulation (e.g., mussels uptake toxins during feeding; mussels are eaten by fish; fish are eaten by humans).



Antifouling paints are toxic to marine life (Photo by Tom Leaird).

What must be done to be in compliance?

- Do not use tributyl tin-containing paints on vessels of less than 25 meters (82 feet) in length; however, vessels with aluminum hulls which corrode from the cuprous oxide antifouling coatings are allowed to use tributyl tin-containing paints (see Organotin Antifouling Paint Control Act in Title 33, Chapter 37, Section 2401 of the United States Code).



A Good Idea!

Prohibit in-water bottom cleaning, hull scraping or any other process that occurs underwater that could remove antifouling paint. Use less toxic antifouling paints such as Teflon, silicone, polyurethane and wax that have limited negative impacts on the environment.

- Make a hazardous waste determination on any waste material or debris to determine whether the waste is hazardous under the Resource Conservation and Recovery Act. If the waste is found to be a hazardous waste, follow the same recommendations in the “Scraping & Sanding” section on pages 147-148.

This page was intentionally left blank.

The regulations a facility must follow when managing and disposing of solvents depends on the type(s) of solvent and precleaner(s) it is using. Listed below are the types of solvents potentially used in boat repair and maintenance and an overview of the regulations associated with each.

Water (Aqueous) Based Solvents

Aqueous-based solvents are generally less toxic alternatives to petroleum-based solvents. Unlike petroleum-based solvents, they are generally safer and have less hazards or adverse impacts associated with them. The detergent used for aqueous parts washing may be an acid, alkaline or a citrus-based solution. Some aqueous systems use microbes to eat the oil and grease that accumulate in the cleaning system. Aqueous parts washers may be in the form of a heated parts washing sink, an immersion tank, or a high-temperature spray cabinet. A high temperature spray cabinet is similar to a large dishwasher in that it combines heat, soap and spraying action to clean dirty parts. This type of unit is available in various sizes, with the larger units having ample capacity for cleaning large parts.

If a facility is considering switching to an aqueous-based cleaner, keep in mind that some aqueous cleaners will cause the parts to rust, requiring that the parts be treated after they are cleaned. Also keep in mind that used aqueous-based solvents may be a toxic hazardous waste if they are contaminated to the extent that they exhibit hazardous waste characteristics or are contaminated with a listed hazardous waste. Potential contaminants include oil and grease, lead, chromium, cadmium, and any precleaners used by the facility.

Depending upon the type and level of contamination, a facility's used aqueous-based solvent may be unacceptable for discharge to the local publicly owned treatment works (POTW) or may be a hazardous waste. If a facility wishes to discharge its aqueous cleaning solution, the facility should first contact its local POTW for permission. At no time should aqueous cleaners be discharged to the environment or a storm water sewer drain.



Petroleum-Based Parts Washer (Photo by Joe Exl, IDNR)

What must be done to be In compliance?

Listed below are the requirements that a facility must follow when managing and disposing of aqueous-based solvents:

- Make a hazardous waste determination and manage used aqueous solutions accordingly. For additional information on listed and characteristic hazardous wastes and the method to be used for making a waste determination, see Appendix D, “Complying With the Hazardous Waste Rules” on pages 105-110.
- Do not discharge used aqueous solution unless it is connected to a POTW or a holding tank or unless the facility has a National Pollutant Discharge Elimination System (NPDES) permit. If a facility is discharging to a POTW, the facility must ensure that the discharge meets the effluent limits set by the POTW.



A Good Idea!

Purchasing an aqueous parts washer with a skimmer and a timer will provide the facility with several benefits. First, the timer will allow it to automatically turn the washer’s heater unit on and off at certain times each day. Turning the heat off at the end of each day not only saves energy, but also allows the aqueous solvent to cool and the oil and grease to separate. The timer can then schedule the skimmer to remove the oil and grease that has risen to the top of the solvent. Frequent skimming of these contaminants will keep the solvent at its peak operating efficiency. Finally, the timer can be set to automatically turn the heater unit back on so that the solvent is ready to use at the beginning of each work day.

Petroleum-Based Solvents (e.g., mineral spirits)

New/virgin petroleum-based solvents are classified according to their flash point. The term “flash point” refers to the temperature at which a material could ignite if exposed to a spark. Materials with a low flash point (100°-140° F) will ignite more easily than materials with a higher flash point (140°-200° F.)

Petroleum-based solvents with a flash point from 100-140° F are also referred to as “low-flash solvents.” This type of solvent will be an ignitable hazardous waste and, possibly, a toxic hazardous waste when disposed.

Petroleum-based solvents with a flash point from 140-200° F are also referred to as “high-flash solvents.” Used high-flash solvent is not considered to be an ignitable hazardous waste unless it is contaminated and its flash point drops below 140° F. Be aware that many high-flash solvents have a flash point that is only slightly above the 140° F threshold for this group of solvents. If the facility uses precleaners that contain flammable materials, the used high-flash solvent may become a low-flash solvent (i.e., an ignitable hazardous waste) that is subject to more stringent regulations. In addition to potentially being an ignitable hazardous waste, a used high-flash solvent may also be a toxic hazardous waste if contaminated to the extent that it exhibits hazardous waste characteristics. If a facility’s pre-cleaners contain any chemicals that are on any of the hazardous waste lists, the used solvent may automatically be a hazardous waste.

Chlorinated Solvents

Using chlorinated solvents can lead to significant compliance work for a facility. Chlorinated solvents include the following:

- Chlorobenzene (monochlorobenzene or benzene chloride);
- Trichloroethylene (trichloroethane, ethinyl trichloride);
- Chlorinated fluorocarbons;
- Methylene chloride (dichloromethane, methylene dichloride, methylene bichloride);
- Tetrachloroethylene (perchloroethylene, ethylene tetrachloride, tetrachloroethene); and
- 1,1,1-trichloroethane (methyl chloroform, chloroethene).

Check the product label or the material safety data sheets for these chemicals. If a facility is using any of them, IDEM air regulations will apply. If you are using methylene chloride as a paint stripper you may also be subject to U.S. EPA’s area source rule for paint stripping and miscellaneous surface coating found under 40 CFR 63 Subpart HHHHHH. Hazardous waste regulations may also apply.

Some facilities use supplemental cleaning products to pretreat carbon deposits and other heavy soils. These cleaning products typically contain ignitable and/or chlorinated solvents such as methanol, propane, xylene, methylene chloride, trichloroethane and/or tetrachloroethylene.

The use of these products may cause used solvent to be a hazardous waste due to toxicity, as well as ignitability. In addition to precleaners, used solvent may be contaminated with lead and/or chromium, which are frequently used as coatings on metal parts. A thin layer of these coatings may wash off when the parts are cleaned, leaving heavy metals in the used solvent.

Under IDEM's air regulations, all facilities that use petroleum-based solvents in an immersion cleaning machine (solvent sink) or in a remote reservoir cleaning machine (part sprayer), must follow specific work practices to limit the amount of volatile organic compounds (VOCs) entering the air. These work practices are listed in the "What Must Be Done To Be In Compliance?" section on page 155.

Under IDEM's hazardous waste rules, used petroleum-based solvent with a flash point below 140° F is a hazardous waste due to the characteristic of ignitability. The term "flash point" refers to the temperature at which a material could ignite if exposed to a spark. Used petroleum-based solvents with a flash point above 140° F are not regulated as a hazardous waste due to ignitability, but may be a hazardous waste due to toxicity depending upon the level and type of contamination. If the solvent contains any of the chemicals listed in 40 CFR 261.31 the waste may be an F-listed hazardous waste. Note that if a facility is classified as a conditionally-exempt small quantity generator (CESQG), disposing of more than 30 gallons of hazardous waste in any one calendar month will change a facility's hazardous waste generator status classification from CESQG to small quantity generator (SQG). If a facility's used petroleum-based solvent is determined to be a hazardous waste, it may easily move into the SQG classification when the parts washer is changed out. Parts washers typically contain between 19 and 27 gallons of used solvent, making the amount of hazardous waste very near the 220 pounds per month threshold for SQGs.

Many vendors have begun continued use programs. Under such a program, the vendors directly reuse their customers' solvents without first treating or recycling the solvents. Under a continued use program, the facility using the solvent does not generate a waste and, therefore, does not need to count the solvent toward their generator status or make a hazardous waste determination on the solvent.

What must be done to be in compliance?

Listed below are the requirements that must be followed when managing and disposing of petroleum based solvents. If a facility uses petroleum-based solvents in immersion cleaning machines (solvent sinks) or in a remote reservoir cleaning machine (part sprayer), it must:

- Keep the solvent tank covered when not in use to prevent evaporation.
- Place a drain shelf in the basin of the parts washer. This shelf allows solvent to drain back into the solvent tank.
- Drain all parts for at least 15 seconds or until the part is no longer dripping.
- Store used solvent to be disposed in tightly covered or closed containers. Users of solvents with a vapor pressure at or below two millimeters of mercury (2.0 mm Hg) must also keep a record of each purchase, including the following information:
 - Name and address of the solvent supplier;
 - Date of purchase;
 - The type of solvent;
 - Volume of each unit;
 - Total volume of the solvent; and
 - Vapor pressure of the solvent.
- Make a hazardous waste determination on used petroleum-based solvent and manage it accordingly.
- Comply with 326 IAC 8-3 if the marina is located in Lake, Porter, Clark, Floyd, Elkhart, St. Joseph or Marion Counties.



A Good Idea!

It is a good idea to purchase or lease a solvent sink with a filter unit. See the next page for details.

A Good Idea!

Purchasing or leasing a solvent sink with a filter unit is a good idea. Some of the newer solvent sinks have filter units that extend the life of the solvent by filtering out contaminants. Dirty solvent passes through the filtering unit where contaminants are removed, and clean solvent is returned to the reservoir for reuse.

The type and location of the filters on the solvent sink vary depending upon the type of filtration system used. Some of the more commonly employed filtration systems are:

- Side-mounted disposable fabric filter units, which remove primarily particulates.
- Cyclonic filter units that use centrifugal force “cyclonic action” to remove solids. The solvent passes through a filtering unit where a spinning action takes place, causing the solids to settle out and allowing the clean solvent to be reused.
- Clay-containing filter units that are placed in the solvent reservoir or in the wash basin to remove primarily oil and grease.

Remember that a hazardous waste determination must be performed on the used filters prior to disposal.

SORBENTS

(includes spill cleanup materials & waste)

Sorbents (absorbent material such as pigs, pillows and socks) are not hazardous unless they come into contact with hazardous materials or hazardous wastes. A facility's used sorbents and spill waste must be managed in one of the ways listed below. The particular requirements that must be followed depends on the type and extent of contamination, the quantity of contaminated sorbents generated per month, and whether the sorbents are recycled or disposed. Note that the term "spill waste" includes sorbents as well as any contaminated soil, residue, debris, and articles from the cleanup of a spill or release of petroleum-contaminated materials. The term "petroleum-contaminated materials" includes spill waste that contains virgin or used petroleum such as: gasoline, diesel fuel, hydraulic fuel, crude or refined oils that do not contain polychlorinated biphenyls (PCBs), kerosene, and heating oils.



Sorbent on a Spill (Photo by Joe Exl, IDNR)

Recycling Petroleum-Contaminated Sorbents (and/or Spill Waste) Under the Used Oil Rule

If a facility's sorbents are contaminated only with used oil, the sorbents may be disposed by burning for energy recovery under the used oil rule. In order to comply with the used oil rule, a facility must properly manage its oil-contaminated sorbents (i.e., don't mix other wastes with these sorbents), and it must either recycle sorbents or send them for disposal at a permitted facility that burns them for energy recovery. See "Used Oil Management" on pages 129-132 for additional information on the used oil rule.

Disposing of Contaminated Sorbents (and/or Spill Waste)

If a facility cannot manage its sorbents and spill waste under the used oil rule (e.g., because of contamination with a waste other than used oil), it must make a hazardous waste determination and manage them accordingly. Sorbents that exhibit hazardous waste characteristics or are contaminated with a listed hazardous waste must be managed as a hazardous waste. Refer to Appendix D, "Complying with the Hazardous Waste Rules," on pages 105-110 for additional information on characteristic and listed hazardous wastes.

SORBENTS

(includes spill cleanup materials & waste)

Disposing of Sorbents and/or Spill Waste as a Solid Waste (i.e., with regular trash)

If used sorbents are determined not to be a hazardous waste, and they do not drip or accumulate free liquids (such as in the bottom of their storage container), a facility may dispose of them with its regular trash. Note that materials containing free liquids are prohibited from landfills. Also note that IDEM's air regulations prohibit air drying contaminated sorbents prior to disposal.

What must be done to be in compliance?

Listed below are the requirements that must be followed when managing and disposing of sorbents:

- If a facility manages its petroleum-contaminated sorbents and spill waste under the used oil rule, it must follow the requirements of this rule.
- If a facility cannot manage its used sorbents and/or spill waste under the used oil rule due to contamination with a waste other than used oil, it must make a hazardous waste determination on its used sorbents.
- If they are a hazardous waste, the facility must manage them accordingly.
- If a facility's used sorbents or spill waste are not a hazardous waste, it must ensure that the material does not drip, contain free liquids, or result in the accumulation of free liquids (such as in the bottom of their storage container) prior to disposing of them with the regular trash.

REMEMBER: Regardless of how a facility manages its contaminated sorbents and/or spill waste, it must not air dry contaminated sorbents to remove ignitable or toxic characteristics prior to disposal!



A Good Idea!

Purchase biomass-derived sorbent material. Sorbents made from plant cellulose, such as cotton and wood-fibers, are very effective in absorbing liquids. Biomass-derived sorbents have an absorbency ratio of 4:1 when compared to most alternatives. The absorbency ratio is five times greater than clay.

APPENDIX H

Hazardous Waste Generator Status & How the Rules Apply to You

If your operations cause hazardous waste to be generated, you must determine your generator status. Hazardous waste generator status is determined on a monthly basis and is based on the amount of hazardous waste you generate within a calendar month. Hazardous waste generators are divided into three categories—conditionally exempt small quantity generator (CESQG), small quantity generator (SQG) and large quantity generator (LQG). The following table outlines the amount of hazardous waste generated and the accumulation times used to determine generator status.

Generator Status	Amount of Hazardous Waste Generated Per Month	On-Site Accumulation Time	On-Site Quantity Limit
Conditionally Exempt Small Quantity Generator	220 pounds (100 kg) or less 2.2 pounds (1 kg) or less of acutely hazardous waste 220 pounds (100 kg) or less of acutely hazardous waste spill residue	Not Applicable	2,220 pounds (1,000 kg)** 2.2 pounds (1 kg) acute*** 220 pounds (100 kg) acute spill residue***
Small Quantity Generator	Between 220 pounds (100 kg) and 2,200 pounds (1000 kg)	No more than 180 days on site or 270 days if shipped 200 miles or more*	13,200 pounds (6,000 kg)
Large Quantity Generator	2,200 pounds (1000 kg) or more	No more than 90 days on site	No Limit

*Hazardous waste that is transported more than 200 miles away for recovery, treatment, or disposal can be stored for up to 270 days.

**If a facility generates/accumulates more than the amount listed, IDEM would consider it an SQG, and all regulations applicable to SQGs would apply.

***If a facility generates/accumulates more than this amount, it may become subject to LQG requirements.

NOTE: The measurements listed in each of the categories are in pounds and kilograms. Many hazardous wastes are liquids and are measured in gallons. In order to measure a facility's liquid waste, gallons will need to be converted to pounds. To do this, the density of the liquid must be known. A rough guide is that 30 gallons (about one-half of a 55 gallon drum) of waste with a density similar to water weighs about 220 pounds (100 kg); 300 gallons of a waste with a density similar to water weighs about 2,200 pounds (1,000 kg).

Once a facility has determined its generator status, a determination can be made as to the hazardous waste rules with which it must comply. CESQGs have the smallest number of rules with which to comply; LQGs have the largest number. A key point to remember when determining the requirements that apply to a facility is that generator status can change from month to month. If, for example, a facility generates less than 220 pounds (100 kg) of hazardous waste during the month of February, it would be considered a CESQG for February and its February waste would be subject to the hazardous waste requirements for CESQGs. If, in March, the facility generates between 220 pounds and 2,200 pounds of hazardous waste, its generator status would change, and it would be considered an SQG for March. Its March waste would then be subject to the requirements for SQGs.

Refer to the Generator Summary Chart for a summary of the requirements that apply to each generator category. The chart contains references to sections within Title 40 of the Code of Federal Regulations. Referring to these sections within the CFR will provide a facility with specific details as to each of these requirements. The CFR can be found on the Internet at <http://ecfr.gpoaccess.gov/>. In addition, a facility may wish to review some of the guidance documents available on U.S. EPA's website at www.epa.gov/epawaste/hazard/generation/resources.htm.

Reducing the amount of hazardous waste a facility is responsible for disposing of has many benefits. First, by increasing the amount of hazardous waste that is reclaimed or recycled, the costs associated with disposal of the waste are avoided. Second, by reclaiming or recycling hazardous waste, the liability associated with the disposal of hazardous waste is limited. This is because the liability associated with any hazardous waste that is sent away for disposal does not end when it is shipped off-site. A facility is still potentially liable for cleanup costs under Superfund for any mismanagement of hazardous waste once it reaches the disposal facility. Third, reclaiming or recycling waste is much better for the environment and the community.

Generator Summary Chart

	Conditionally Exempt Small Quantity Generator	Small Quantity Generator	Large Quantity Generator
Quantity Limits	<p>220 pounds (100 kg) or less per month</p> <p>2.2 pounds (1 kg) or less per month of acute hazardous waste</p> <p>220 pounds (100 kg) or less per month of acute hazardous waste spill residue or soil</p> <p>40 CFR 261.5(a) and (e)</p>	<p>Between 220 pounds (100 kg) and 2,200 pounds (1000 kg) per month</p> <p>40 CFR 262.34(d)</p>	<p>2,200 pounds (1000 kg) or more per month</p> <p>2.2 pounds (1 kg) or more of acute hazardous waste per month</p> <p>>220 pounds (100 kg) per month of acute spill residue or soil</p> <p>40 CFR 262 and 40 CFR 261.5(e)</p>
U.S. Environmental Protection Agency ID Number	<p>Not required</p> <p>40 CFR 261.5</p>	<p>Required</p> <p>40 CFR 262.12</p>	<p>Required</p> <p>40 CFR 262.12</p>
On-Site Accumulation Quantity	<p>2,200 pounds (1000 kg) hazardous waste</p> <p>2.2 pounds (1 kg) acute hazardous waste</p> <p>220 pounds (100 kg) acute hazardous waste spill residue</p> <p>40 CFR 261.5(f)(2) and 40 CFR 261.5(g)(2)</p>	<p>Less than 13,200 pounds (6000 kg)</p> <p>40 CFR 262.34(d)(1)</p>	<p>No Limit</p>
Accumulation Time	<p>None</p> <p>40 CFR 261.5</p>	<p>180 days or 270 days (if more than 200 miles to waste treatment, storage or disposal facility)</p> <p>40 CFR 262.34(d)(2) and (3)</p>	<p>90 days</p> <p>40 CFR 262.34(a)</p>

Generator Summary Chart *(continued)*

	Conditionally Exempt Small Quantity Generator	Small Quantity Generator	Large Quantity Generator
Storage Requirements	Comply with 40 CFR 261.5	Basic requirements with technical standards for tanks or containers 40 CFR 262.34(d)(2) and(3)	Full compliance for management of tanks, containers, or containment buildings 40 CFR 262.34(a)
Off-Site Management of Waste	RCRA permitted/interim status facility 40 CFR 261.5(f)(3) and (g)(3)	RCRA permitted/interim status facility 40 CFR 262.20(b)	RCRA permitted/interim status facility 40 CFR 262.20(b)
Manifest	Not required 40 CFR 261.5	Required 40 CFR 262.20	Required 40 CFR 262.20
Biennial Report	Not required 40 CFR 261.5	Not required 40 CFR 262.44	Required 40 CFR 262.41
Annual Report	Not required 40 CFR 261.5	Required 329 IAC 3.1-7-2	Required on years opposite the biennial report 329 IAC 3.1-7-2
Personnel Training	Not required 40 CFR 261.5	Basic training required 40 CFR 262.34(d)(5)(iii)	Required 40 CFR 262.34(a)(4)
Contingency Plan	Not required 40 CFR 261.5	Basic plan 40 CFR 262.34(d)(5)(i)	Full plan required 40 CFR 262.34(a)(4)
Emergency Procedures	Not required 40 CFR 261.5	Required 40 CFR 262.34(d)(5)(iv)	Required 40 CFR 262.34(a)(4)
Department of Transportation Requirements	Yes (if required by DOT) 49 CFR 172.702	Yes 40 CFR 262.30 - 262.33 49 CFR 172.702	Yes 40 CFR 262.30 - 262.33 49 CFR 172.702

Source: www.epa.gov/epawaste/hazard/generation/summary.htm

APPENDIX I

Selecting a Waste Transporter & Recycling/Waste Management Company

If you generate hazardous waste, you are responsible for the waste material cradle to grave. This means that you are responsible for the waste even after it leaves your marina. When it is time to select a waste hauler, recycling or treatment, storage, or disposal facility, you will need to make sure that you chose a reputable company that is in compliance with all federal and state regulations.



Selecting a Waste Transporter

Regulations pertaining to waste transportation vary depending on your generator status. Both federal and state regulations state that if you are a conditionally exempt small quantity generator (generate less than 220 pounds per month and store less than 2,200 pounds) you may transport your hazardous waste to a recycling facility or treatment, storage, or disposal facility yourself (see Appendix H, “Hazardous Waste Generator Status and How the Rules Apply to You,” on pages 159-162).

While this may seem like a way to save yourself money, the liability of transporting hazardous materials can be quite large. If there is a spill or release of hazardous materials during transportation, you will be liable and will have to pay for the cleanup costs. You may wish to just comply with the transportation requirements of a small quantity generator.

If you are a small quantity generator or a large quantity generator, you are required to ship your hazardous waste using a manifest and a U.S. EPA-permitted hazardous waste hauler. This includes transporters of used oil. Your chosen hauler must also have:

- A hazardous materials transporter registration with the U.S. Department of Transportation; and
- A hazardous materials/waste endorsement from the department of motor vehicles in the state in which they received their commercial driver’s license.

Your chosen hauler may also need:

- A registration in the destination state for interstate transport if the destination state or pass-through state requires it.

● Safety, Training and Equipment

You will want to make sure that the transporters you choose have health and safety programs in place. They should also train their employees in best management practices to minimize the potential for accidents or spills involving your waste. Transporters should have training programs which address:

- Use and inspection of safety and emergency equipment;
- Emergency response procedures and contingency plans including emergency response contractors;
- Container labeling and vehicle placarding, chemical compatibility, segregation, and securing of loads;
- Vehicle maintenance checks including a pre-trip safety inspection; and
- Substance abuse. They should have a stringent anti-drug policy. Ask to see their drug screening policy.

Transport companies should be able to supply you with training certificates and copies of inspection reports from previous inspections from regulatory agencies such as departments of transportation. Ask for copies of these documents if they do not supply them. You also may obtain a company's safety record, including the safety rating (if any), inspection summary and crash information, from the Safety and Fitness Electronic Records System at www.safer.org (click on "Company Snapshot").

● Liability and Insurance

To minimize your liability, be sure the services you select meet or exceed minimum liability requirements (a copy of the certificate of insurance will show the amount of insurance coverage held by the company).

Transporters should be able to provide you with a list of customers in your geographic area who generate a similar waste stream(s). Call some of them and ask about the length of service; satisfaction with service; company reliability; safety practices; whether there have been any spills, emergency incidents, or other mishaps; and any other information pertinent to your circumstances.

Ask your transporter what role they will play in passing your waste to another responsible party, be it another transporter, or to a treatment, storage or disposal facility. You will need to know if they plan on using other haulers to transport your waste or if it is going to be delayed in shipment in storage or in transfer facilities (“10 day” yards). Ask your transporter about their relationship with the treatment, storage or disposal facility. If they have a good relationship, it may make dealing with any off-specification issues easier.

● Compliance Assistance

While you are responsible for the proper packaging and labeling/marketing of your waste materials before offering them for transportation, a good/reputable waste hauler should be well trained in hazardous materials regulations and should be able to assist you. Their assistance, however, does not relieve your responsibilities as a generator. You should inquire about their methods of keeping current with the regulations. See if they offer any assistance to their customer such as publications, workshops or consulting services.

● Cost

Talk to your transporter about minimum charges, surcharges, and demurrage. They may offer a reduced rate if you can comply with a milk run schedule that they set up. A “milk run” service allows you to share some of the transportation costs with other small quantity generators transporting drums on the same load. Speak with the haulers to see if they charge more for a small volume of material or drums or conversely will they discount prices for a larger volume? An oil hauler may be able to pick up good used oil for little to nothing if the volume is worth their effort. Ask about surcharges for issues with drums, loading and labeling/marketing. Are they charging you for something you could handle yourself? What will they charge you if the treatment, storage or disposal facility holds the truck due to issues with your waste or paperwork? Will you be charged a demurrage rate?

Choosing a Waste Management Facility

In choosing a waste management facility, you will want to make sure that you are choosing a reputable company that is in compliance with all regulations. You should also look for companies that can handle your needs as you see them. Do you want a company that can handle all of your different waste streams, acting as a treatment facility for some while brokering other streams, or do you want various facilities for your various waste streams? Do you want a facility that also offers transportation or will schedule transportation for you? Many waste management companies offer an “audit package,” a book that contains information on what the facility does, its history and permits.

Regulations and permit requirements required by treatment and disposal facilities vary depending on what type of material they handle and in what manner they manage the material. Recycling facilities will require fewer permits than treatment, storage or disposal facilities that are regulated under the Resource Conservation and Recovery Act (RCRA). Some wastewater treatment plants operate under a different set of regulations found in the Clean Water Act. There are other permits that may be required by IDEM's Office of Water Quality and Office of Air Quality. If your waste will be disposed of in another state, you will need to make sure that they comply with all of that state's requirements.

● Required Permits, Etc.

If you are shipping your waste to a treatment, storage, or disposal facility you should make sure they have:

- A U.S. EPA/state identification number;
- The authorization to treat hazardous waste (e.g., a RCRA permit, interim status permit, or a variance for non-RCRA waste management); and
- All applicable local, regional, and state permits (e.g., National Pollutant Discharge Elimination System permit for industrial waste discharge, air permits, etc.).

● Safety, Equipment and Training

You will want to make sure the facilities that will be receiving your waste operate under strict safety and training standards to minimize the potential for accidents or spills involving your waste. Treatment, storage or disposal facilities should have training programs which address:

- Facility evacuation;
- Use and inspection of safety and emergency equipment;
- Emergency response procedures and contingency plan implementation;
- Container labeling and vehicle placarding;
- Regular facility maintenance checks;
- Occupational Safety and Health Administration (OSHA) Hazardous Work Operations and Emergency Responses (HAZWOPER) training; and
- OSHA training specific to any equipment on site.

Contingency plans should designate equipment and trained personnel for emergency/spill response.

Treatment, storage or disposal facility operation plans should address all aspects of facility operations, including equipment maintenance and provisions for security (e.g., fencing and adequate warning signs).

All hazardous materials/waste handlers are required to have on-the-job and formal training that includes:

1. General training for recognition and identification of hazardous materials;
2. Function/job-specific training; and
3. Safety training (emergency response and accident/exposure prevention).

These training requirements may be met by a one-time 24 or 40-hour hazardous waste and operations training course and 8-hour annual refresher courses. If they generate or ship waste they will need U.S. Department of Transportation training.

Training records or copies of employee training certificates can verify fulfillment of training requirements. Training record information is also available in inspection reports. Ask to see documentation of training. You should also ask to see inspection reports from IDEM and Indiana Occupational Safety and Health Administration inspectors.

● Inspection Records

Inspection records are a good way to determine if your waste handler is compliant with the regulations pertaining to its operation. Treatment, storage or disposal facilities located in Indiana are inspected by IDEM and may be inspected by U.S. EPA. If your waste is being shipped to another state, you will need to contact that state's regulatory agency. Inspections may include:

- Containers (including labeling requirements), tanks, and containment areas;
- Emergency equipment such as self-contained breathing apparatus units, fire extinguishers, showers, and eye wash facilities;
- Emergency lights, gates, and fences;
- Personal protection equipment; and
- Operation records, including training plans, contingency plans, closure plans, inspection plans, biennial reports, and compliance with financial and land disposal restriction requirements.

To obtain general site information and violation history on a treatment, storage or disposal facility, you can utilize U.S. EPA's Enforcement and Compliance History Online at www.epa.gov/echo. You may also wish to contact the better business bureau to see if there have been any business complaints regarding the treatment, storage or disposal facility.

● References

Treatment, storage or disposal facilities should be able to provide you with a list of customers in your geographic area who generate a similar waste stream(s). Call some and ask about the length of service; satisfaction with service; company reliability; safety practices; whether there have been any spills, emergency incidents, or other mishaps; and any other information pertinent to your circumstances.

● Disposal Options

As you remain responsible for your waste from “cradle to grave,” it is important that you know where your waste is going, how it is going to be managed, and the final disposition of any residues, ash, or empty containers. Ask how “off-spec” waste shipments will be handled. You may wish to ask for certificates of destruction or recycling. Ask if they plan to ship your waste to a third party. If they plan on using a third party, you should investigate the third party as closely as you have inspected your chosen treatment, storage or disposal facility. In determining the final disposition, you need to decide on what your future liability could be versus cost of disposal. If your waste is landfilled, you could be liable for any mishandling or future actions against the landfill owner. Incineration is not always appropriate for each type of waste and is more costly. Some facilities use third parties that are located in Canada. How do you feel about your waste being exported? Ask your treatment, storage or disposal facility what your options are and whether they will allow you to put limitations on how your waste is handled.

Contact more than one potential treatment, storage or disposal facility to get an idea of your options. Choose a service that will assist you in selecting the most cost-effective and environmentally-sound disposal option.

Choose options which minimize potential future liability. Whenever possible, have your hazardous wastes recycled, reclaimed, or treated, in that order of priority.

● Compliance Assistance

It is important that your service provider keep up-to-date with hazardous waste transportation/disposal requirements and regulations because the rules sometimes change. You should look for companies that have full-time environmental staff. For national companies, ask if they have regulatory staff at each location. Ask companies how they keep abreast of new requirements and choose one that is informed.

Some companies provide customers with private consultations, classes on proper labeling and manifesting, and/or newsletters highlighting new developments and regulations. Look for companies that will assist you in sampling, profiling, manifest preparation, and reporting requirements, as well as provide you with the 24-hour emergency phone number required for your hazardous waste shipments. Remember, however, it is still your responsibility to make sure that

all waste determinations, shipping, management, disposition and reporting are in compliance with state and federal regulations.

● Cost

Ask your sales representative about minimum charges and options for reducing costs which may not be obvious (e.g., pick-up as needed vs. regularly scheduled pick-up).

Treatment, storage or disposal facilities must have a "profile" identifying a waste stream's characteristics before accepting it. This usually involves sampling and chemical analysis. Most treatment, storage or disposal facilities provide profiling services, but some may require or allow outside chemical analysis. Profiling fees range widely depending on what analysis they require. Shop around for reasonable rates. Disposal fees will vary depending on the type of waste and type of recycling/treatment/disposal. Choose the option that will minimize current and future costs.

● Site Visit

If possible, make a site visit before contracting for services. Look for:

- A clean and orderly site and well-maintained equipment/ vehicles;
- Clear hazard signs and safety warnings;
- Properly contained and organized hazardous waste storage areas (no large backlog or stockpiling of empty containers, etc.);
- Adequate supervision of operations and employees who are using proper safety precautions;
- Signs of spills or releases;
- Adequate security provisions (e.g., fences, locks, alarms, warning signs, etc.); and
- An organized record keeping system (how do they track manifests, how often do they inspect the facility, etc.).

Finding Environmental Service Providers

There are several resources other than the yellow pages that may help you locate an environmental service provider, including:

Your local solid waste management district;

Your local chamber of commerce;

Neighboring businesses;

www.enviroyellowpages.com; and

www.earth911.com.

This page was intentionally left blank.

APPENDIX J

Sample Contract Language

Sample Contract Language for Tenants

I, _____, understand that
(Name of Tenant)

(Name of Marina/Boatyard)

subscribes to and enforces pollution prevention procedures. I further understand and agree that in return for the privilege of performing work on a boat at this facility, such as:

- Hull cleaning;
- Washing;
- Sanding;
- Polishing and/or painting;
- Bottom cleaning;
- Scraping, and/or painting;
- Opening the hull for any reason (e.g., installation of equipment or engine work);
- Engine and/or stern drive maintenance;
- Repair; and
- Painting; etc.,

it is my responsibility to comply with, at a minimum, the following pollution prevention practices. I understand that this list may not be complete and pledge that I will exercise common sense and judgment in my actions to ensure that my activities will not deposit pollution residues in surface waters or elsewhere where they may be conveyed by storm water run-off into the surface waters. I understand that failure to adopt pollution prevention procedures may result in expulsion from the above named marina/boatyard, and forfeiture of rental fees. I understand that I may elect to employ the facility to perform potential pollution producing activities on my behalf in which case the responsibility for compliance with the best management practices is entirely theirs.

(Signature of Tenant)

(Month, Day & Year)

Sample Contract Language for Subcontractors

I, _____ understand and agree to
(Name of Subcontractor)

have my proposed work first authorized by:

(Name of Marina/Boatyard)

and that I will adhere, at a minimum, to the contents of this document, which includes pollution prevention practices for:

- A. Repairs and Service (to hull and engine: painting, cleaning, washing, sanding, scraping, etc.);
- B. Vessel Maintenance Waste;
- C. Fuel Operations;
- D. Waste Oil and Fuel;
- E. Onboard Practices;
- F. Sewage Handling;
- G. Organic Waste; and
- H. Solid Waste.

I further understand that because of the nature of my proposed work, the facility may require that I be supervised by an employee of said facility for which I will pay the normal existing labor rate.

(Signature of Subcontractor)

(Month, Day & Year)

Note

The sample contract language for tenants and subcontractors is based on New Jersey's Clean Marina Program. Electronic versions are available on the Web at www.IN.gov/dnr/naturepreserve/4839.htm.

Pollution Prevention Practices for Tenants and Subcontractors

A. REPAIRS AND SERVICE

(to hull and engine: painting, cleaning, washing, sanding, scraping, etc.)

1. Work on hulls and engines only in designated areas or use portable containment enclosures with approval of marina management.
2. Use tarps and vacuums to collect solid wastes produced by cleaning and repair operations, especially boat bottom cleaning, sanding, scraping, and painting.
3. Conduct all spray painting within an enclosed booth or under tarps.
4. Use nontoxic, biodegradable solvents.
5. Capture debris from boat washing and use only minimal amounts of phosphate-free, nontoxic, and biodegradable cleaners.
6. Use drip pans for any oil transfers, grease operations, and when servicing inboard/outboard motors and outboard motors.
7. Obtain management approval before and after repairs that open the hull.
8. Use spill proof oil change equipment.

B. VESSEL MAINTENANCE WASTE

1. Bag nontoxic residue from sanding, scraping, and grinding and dispose of it in your regular trash.
2. Seek specific directions from marina management on proper disposal of toxic and non-environmentally-safe solvents and cleaning liquids or use a licensed agency for disposal.

C. FUEL OPERATIONS

1. Install fuel/air separator on fuel tank vent line(s) to prevent overflow of fuel through vent.
2. Keep petroleum absorbent pad(s) readily available to catch or contain minor spills and drips during fueling.

D. WASTE OIL AND FUEL

1. Recycle used oil and antifreeze.
2. Add a stabilizer to fuel tank in the fall or an octane booster to stale fuel in the spring. Use the fuel or take it to a household hazardous waste collection site.
3. Drain liquid from absorbent materials soaked with oil or diesel and dispose of the liquid in the used oil recycling container. Double bag absorbent material in plastic and dispose of it in the regular trash receptacle.
4. Air dry absorbent materials soaked with gasoline (flammable) and reuse them.

5. Dispose of bioremediating absorbent products in the regular trash as long as no liquid is dripping. Because the microbes need oxygen to function, do not seal in plastic.
6. Drain oil filters and recycle the oil. Recycle the filter or double bag it and dispose of it in the regular trash.

E. ONBOARD PRACTICES

1. Maintain oil absorbent pads in bilge. Inspect no less than annually.
2. Do not discharge bilge water if there is a sheen to it.
3. Use only low-toxic antifreeze (propylene glycol). Recycle used antifreeze (even used low-toxic antifreeze contains heavy metals).

F. SEWAGE HANDLING

1. Never discharge raw sewage within waters of the state or Lake Michigan.
2. If you have an installed toilet, you must have an approved marine sanitation device.
3. Do not discharge Type I or Type II marine sanitation devices within the marina basin.
4. Use marina restroom facilities when at slip.
5. Do not empty port-a-pots overboard; use marina dump facility.
Do not empty port-a-pots in the restrooms.
6. Do not discharge holding tanks overboard; use pumpout facility.
7. If you must use a holding tank additive, use an enzyme-based product.
Avoid products that contain quaternary ammonium compounds, formaldehyde, formalin, phenol derivatives, alcohol bases, or chlorine bleach.
8. For live-boards, place a dye tablet in holding tank after each pumpout.
The dye will make any illegal discharges clearly visible.

G. ORGANIC WASTE

1. Clean fish only in designated areas.
2. Grind, compost, or double bag fish scraps (depending on the services offered by your marina).
3. Walk pets in specified areas and dispose of their wastes, double-bagged, in the dumpster.

H. SOLID WASTE

1. Recycle plastic, glass, aluminum, and newspaper (tailor this section to fit your facility's practices).
2. Place trash in covered trash receptacles; replace covers.

APPENDIX K



CLEAN BOATER TIP SHEETS

- Fuel and Oil..... 177
- Sewage..... 179
- Boat Cleaning 181
- Bilges 183
- Solid Waste 185
- Boat Maintenance and Operation 187
- Aquatic Invasive Species..... 189

This page was intentionally left blank.

CLEAN BOATER TIP SHEET



Fuel and Oil

Fuel and oil spills are not only unsightly and unpleasant smelling, they can cause significant harm to the environment. A single cup of spilled fuel or oil can contaminate an area the size of a football field. One quart of oil can create a slick over two acres, or three football fields, in size. Gas, oil, and other lubricants contain a potential pollutant known as petroleum hydrocarbons. These products also contain other toxic elements and metals. Over time, these pollutants settle to the lake or stream bottom and accumulate in the sediment. Aquatic organisms that feed along the bottom may ingest these pollutants and transmit them up the food chain to ultimately be consumed by a variety of wildlife or humans. You, as a boater on Indiana water, can be an active steward of this valuable resource by implementing these practices:



This boater used an absorbent towel to prevent drops of fuel from contaminating Lake Michigan.



There are many absorbent products that catch drips and overflows, such as this fuel bib which slides over the fuel filler neck (Source: BoatU.S. Foundation).

Take Caution at the Fuel Pump

- Fuel your boat slowly and carefully.
- Attend the fuel nozzle at all times.
- Never “top off” your tank. Fuel expands as it warms.
- Listen. You’ll hear a gurgling sound as the tank reaches full.
- Use your hand to feel for air escaping from the vent. An increase in air flow will happen as the tank approaches full.
- Use an absorbent fuel bib or collar at the fuel intake to capture spills or drips.
- Fuel portable gas tanks on shore where a spill is less likely to occur and easier to contain.
- Have a trained attendant fuel your watercraft for you.
- Consider installing a “fuel whistle” on your vent. This inexpensive device will confirm when your tanks are close to full.



Handling Spills

- If you do have a spill while fueling, clean it up with an absorbent cloth. Dispose of the cloth appropriately.
- Do not use detergent to disperse the spill. This only exacerbates the problem.
- If fueling at a marina fuel dock and you have a spill, notify the fuel dock attendant or marina management immediately.
- Notify the U.S. Coast Guard National Response Center at (800) 424-8802 if there is a spill while underway.

Absorbent Materials

- Reuse pads that are contaminated with fuel.
- Wring out pads contaminated with oil into an oil recycling container.
- Dispose of used absorbent materials according to the manufacturer recommendations or local regulations.

Bilges

Bilges can also be a significant source of pollution to the environment since they tend to collect fuel, antifreeze, oil, and transmission fluids. When the bilge is activated, these contaminants are pumped into the water.

- Use bilge socks to absorb oil in the bilge.
- Never discharge any bilge water that has an oily sheen.
- Maintain your engine to prevent spills and drips.
- Place a pan under the oil filter when doing an oil change or slip a plastic bag over the filter before removing it.
- Place an oil absorbent pad under the engine.



Bilge socks are used to prevent the discharge of oil and fuel into the marine environment (Source: Volusia County Environmental Management).

For More Information

Coastal Nonpoint Coordinator
Lake Michigan Coastal Program
1600 North 25 East
Chesterton, Indiana 46304
Phone: (219) 921-0863
Fax: (219) 926-9775

www.IN.gov/dnr/lakemich

CLEAN BOATER TIP SHEET



Sewage

When sewage is dumped into a lake, stream, or other surface water, there is a potential for disease-causing pathogens to enter the water. These pathogens pose a risk to swimmers, anglers, and other people coming into direct contact with the water. Not only is there a risk to humans, there is a risk to fish and other aquatic life. As sewage breaks down in the aquatic environment, the bacteria that feed upon the sewage consume large amounts of oxygen from the water column. This in turn reduces the amount of oxygen available for fish. Many of our highly valued gamefish, including trout, salmon, yellow perch, and smallmouth bass, are especially prone to distress under low dissolved oxygen levels. Additionally, there are a number of chemical additives that are used in marine sanitary devices that can be of concern. You, as a boater on Indiana water, can be an active steward of this valuable resource by implementing these practices:



Handling Vessel Sewage

- Before heading out on the lake, use the restroom facilities at the marina.
- Use the marina's pumpout or dump station. These should be well marked. If there is not a pumpout or dump station at the marina in which you launch or moor, check with marina management. They may have a cooperative agreement to use another marina's pumpout station.
- Know your marine sanitation device to prevent accidental dumping.
- Use environmentally-friendly additives for your marine sanitation device.
- Follow the law—it is *illegal* to discharge sewage or waste into public waters (*Indiana Code 14-15-2-8*).



- Find a pumpout location near you by visiting www.idem.IN.gov (keyword: pumpout) or by calling the Indiana Department of Environmental Management at (800) 451-6027.

Pumping a Boat's Holding Tank

1. Remove the cap from the boat's deck waste fitting.
2. Insert the hose nozzle into the deck fitting. (You may need an adapter to make it fit. Marinas generally have them available. They are also for sale in boat stores.)
3. Turn the pump on. If there is a hose valve, open it to start the suction.
4. When waste is no longer seen in the sightglass, close the hose valve, turn off the pump and remove the nozzle from the deck fitting.
5. If a water hose is available, rinse the boat's tank and pump it dry.
6. Put the pump nozzle (with open valve) in a water source and pump the water for 15 seconds to rinse the hose.
7. Close the hose valve. Put away the hose. Turn off the pump and replace the deck fitting cap.



Look for Pumpout Stations. Do Not Dump Overboard!

For More Information

Coastal Nonpoint Coordinator
Lake Michigan Coastal Program
1600 North 25 East
Chesterton, Indiana 46304
Phone: (219) 921-0863
Fax: (219) 926-9775

www.IN.gov/dnr/lakemich

CLEAN BOATER TIP SHEET



Boat Cleaning

Some of the common solvents and cleaners that are used by boaters can cause harm to the aquatic environment if care is not taken during their use. Some cleaning products contain harsh chemicals such as chlorine, ammonia, and phosphates that can harm fish and wildlife. While some boaters may not consider there to be much harm in cleaning a single boat, consider the dozens or hundreds of boaters in the marina who are doing the same thing. Due to the sheltered environment in which marinas are located, pollutants tend to build up within their basins.



Wash the boat hull above the waterline by hand. Where feasible, remove the boat from the water and perform cleaning where debris can be captured and properly disposed (Source: U.S. EPA).

Some of the chemicals contained in cleaners or antifouling paints can bioaccumulate in aquatic organisms. That is, they become more concentrated as they are ingested successively by animals higher up on the food chain to ultimately be consumed by a variety of wildlife or humans. You, as a boater on Indiana water, can be an active steward of this valuable resource by implementing these practices:

Environmentally-Friendly Boat Cleaning

- Whenever possible, clean as much of your boat as you can before launching it for the season. Wash the boat on land in a contained area where the wash water can be collected and treated.
- While in the water, wash your boat above the waterline by hand with a sponge and plain water and do it frequently enough so that the need to use harsh chemicals is reduced.
- Use cleaning products that are environmentally friendly (e.g., non-toxic or phosphate-free). Always follow the instructions on the label and test the product in an inconspicuous area. Use the products sparingly and only when “elbow grease” is not working. Beware of biodegradable cleaners that may still be toxic.



- Use the recipes for home-made non-toxic cleaning alternatives that are listed in the *Boat Cleaning* section of the *Indiana Clean Marina Guidebook* available on the Web at www.IN.gov/dnr/naturepreserve/4839.htm.
- Avoid using caustic cleaners such as bleach, ammonia or lye. Do not use petroleum-based cleaning products.
- Keep your boat waxed. A good coat of wax helps prevent surface dirt from becoming ingrained in the hull and makes your boat easier to clean later.
- Try not to clean your boat below the waterline while it is in the water. Chips of antifouling paint can be displaced into the water where they can potentially cause harm to fish and other organisms that fish feed upon.



This professional boat cleaning service uses “elbow grease” and environmentally-friendly cleaning products. Their practice of washing boats on land reduces pollution to the marina basin.

For More Information

Coastal Nonpoint Coordinator
Lake Michigan Coastal Program
1600 North 25 East
Chesterton, Indiana 46304
Phone: (219) 921-0863
Fax: (219) 926-9775

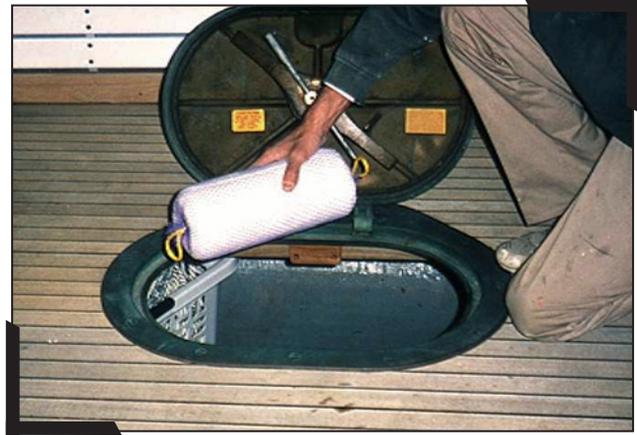
www.IN.gov/dnr/lakemich

CLEAN BOATER TIP SHEET



Bilges

Bilges can be a major source of pollution in marinas. They tend to collect engine oil, fuel, antifreeze, and transmission fluid. Fuel, oil, and other lubricants contain a potential pollutant known as petroleum hydrocarbons. These products also contain other toxic elements and metals. When the bilge pump is activated manually or automatically, these pollutants are pumped overboard into the water. Over time, these pollutants settle to the lake or river bottom and accumulate in the sediment. Aquatic organisms that feed along the bottom may ingest these pollutants and transmit them up the food chain to ultimately be consumed by a variety of wildlife or humans. You, as a boater on Indiana water, can be an active steward of this valuable resource by implementing these practices:



Use bilge socks to absorb oil (Source: Jay Tanski, New York Sea Grant).

Control Spills and Drips in the Bilge

- Avoid discharging bilge water that has an oily sheen.
- Use bilge socks or absorbent pads to collect floating oil and fuel in the bilge.
- Replace these pads when they are heavily saturated or soiled.
- Properly recycle (if available) or dispose of used absorbents.
- Maintain your boat's engine—no leaking hoses, gaskets or seals.
- Change engine oil using nonspill vacuum-type systems.
- Use antifreeze that is less toxic to the environment (propylene glycol-based).
- Trailer your boat to an area that can contain or treat bilge water before removing the bilge or boat plugs.
- Install a bilge pump switch that leaves an inch or two of water in the bilge.
- Install a bilge water filter to your vessel's bilge. Filters will remove oil and fuel from the water.



- Do not use bilge cleaners when pumping to a waterbody. These cleaners simply disperse the oil and do not remove it from the bilge water.
- Slip a plastic bag over filters before removing them to catch drips.
- Look for contractors or marinas that offer bilge pumpout services.

Handle Spills Appropriately

- Stop the flow and contain the spill.
- If you have a minor spill, clean it up with a rag.
- If there is an oil or fuel spill in the water, do not use detergent to disperse it. Immediately notify the marina office so that the spill can be handled in an appropriate manner.
- Notify the U.S. Coast Guard National Response Center at (800) 424-8802 if there is spill while underway.



The use of a bilge sock would help prevent oil collected in the bottom of this bilge from being discharged to the lake (Photo by Joe Exl, IDNR).



Absorbent bilge sock (Source: Volusia County Environmental Management)

For More Information

Coastal Nonpoint Coordinator
Lake Michigan Coastal Program
1600 North 25 East
Chesterton, Indiana 46304
Phone: (219) 921-0863
Fax: (219) 926-9775

www.IN.gov/dnr/lakemich

CLEAN BOATER TIP SHEET



Solid Waste

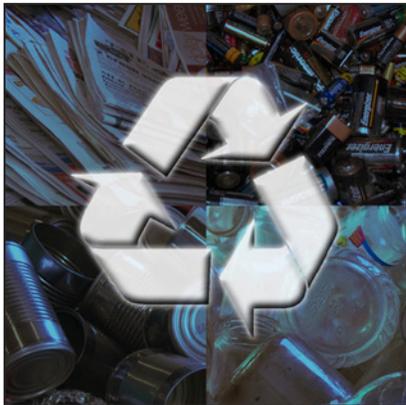
Solid waste such as bottles, cans, fishing line, plastic bags and other refuse can injure or kill aquatic life and birds by trapping or entangling them. Not only is trash unsightly, it can also foul props or water intakes of boats or other equipment. You, as a boater on Indiana water, can be an active steward of this valuable resource by implementing these practices:



Recycle your fishing line to prevent entanglement of fish and wildlife.

Controlling Solid Waste

- Have a waste container on your boat. The best policy is to carry out what you carry in. You might consider going one step further and carry out any trash less thoughtful people may have left behind.
- Use recyclable containers and reusable bags. Minimize the use of plastic wrap and disposable bags while out on your boat.
- Don't toss garbage, including cigarette butts, overboard.
- If trash blows overboard, make an effort to retrieve it.



- Recycle oil, batteries, plastic, metal, glass and newspaper.
- Recycle fishing line or dispose of it properly. Some marinas and sporting goods stores offer fishing line recycling.
- Find out if your marina recycles shrink wrap used for winter storage. Recycle your shrink wrap if possible.
- Properly dispose of unwanted waste chemicals by utilizing the household hazardous waste collection program in your community.
- Clean up after your dog and deposit waste in a trash can or appropriate receptacle.



- Use the marina's trash cans and recycling bins and replace the lids after using them so that waste does not blow out of them.
- Cut the rings of six pack holders prior to disposal.
- Clean your fish at a fish cleaning station—not at the dock—to keep the marina cleaner, keep odors down and reduce nuisance birds and pests. Disposing of fish waste in the marina basin is prohibited.

If there are no disposal options, double bag the fish waste and dispose of it with the regular trash.

- If your marina has a fish waste composting program, compost your fish waste.
- Avoid feeding wild birds, including ducks, geese and seagulls, in the marina. Feeding birds encourages them to flock to the marina and become long-term residents. The birds' waste can contaminate water and create a mess on boats and walkways.



Use trash and recycling bins at your marina.



Some marinas offer battery recycling.

For More Information

Coastal Nonpoint Coordinator
Lake Michigan Coastal Program
1600 North 25 East
Chesterton, Indiana 46304
Phone: (219) 921-0863
Fax: (219) 926-9775

www.IN.gov/dnr/lakemich

CLEAN BOATER TIP SHEET



Boat Maintenance and Operation

The general maintenance of boats can generate pollutants and waste products (i.e., hazardous waste) that can be harmful to the environment. Some of these potential pollutants include solvents, paints, lubricants, oil, antifreeze, fuel, batteries, and bilge switches that contain mercury. Proper use, storage, and disposal are key to keeping these pollutants out of the environment. You, as a boater on Indiana water, can be an active steward of this valuable resource by implementing these practices:



Oil Filter Recycling Containers (Photo by Cathy Csatari, IDEM).

Managing and Preventing Hazardous Waste

- Recycle used oil, oil filters, antifreeze, and other fluids at your marina, or contact your solid waste management district or local automotive store to determine what recycling services they offer.
- Trade in used batteries when purchasing new ones. Many stores offer “core” credits towards the purchase of a new battery.
- Manage used compact fluorescent light bulbs, which may contain mercury, in an environmentally-sound manner. Contact your local solid waste management district for recycling and disposal options.



Use non-toxic or less toxic antifreeze.

- Share leftover paints, varnishes, and other chemicals with other boaters.
- If possible, purchase bilge switches that do not contain mercury.
- Use environmentally-friendly products such as antifreeze formulated with less toxic propylene glycol (instead of highly toxic ethylene glycol), water-based paints (instead of solvent-based paints), and low volatile organic compound coatings as long-lasting and non-toxic antifouling paint when possible.



Indiana Department of Environmental Management



Maintaining Your Boat

- If your marina allows do-it-yourself boat maintenance on site, perform repairs and maintenance activities in designated areas and follow your marina's "yard rules."
- Routinely check your engine for fuel leaks and your fuel lines for signs of wear.
- Use drip pans under engines when performing maintenance procedures.
- Install fuel/air separators on inboard fuel tank air vents to help reduce the amount of fuel spilled into surface waters while fueling.

Operating Your Boat

Boat traffic and operation can significantly impact shallow water habitats. Boat wakes can erode shorelines and uproot submergent and emergent plants. This leads to reduced habitat for fish and wildlife and increases suspended sediment loads. Suspended sediment reduces the amount of sunlight penetrating the water column and shades out submerged plants that are important to fish for habitat and oxygen production.

- Keep your watercraft away from sensitive, shallow water habitat areas and established "no boating" zones.
- When in a "no wake" zone, operate your watercraft at the slowest possible speed (*idle speed or less per Indiana Code 14-15-3-17*) that allows you to maintain steering and make headway with minimal wake.
- Winch your watercraft onto boat trailers instead of power loading your boat onto the trailer. The strong current created by the boat's propeller causes severe erosion and washout at the end of the ramp.



When recycling used oil, be careful not to spill it on the ground. This used oil collection container has a secondary containment tray which helps to catch spills and prevent releases to the environment (Photo by Cathy Csatari, IDEM).

For More Information

Coastal Nonpoint Coordinator
Lake Michigan Coastal Program
1600 North 25 East
Chesterton, Indiana 46304
Phone: (219) 921-0863
Fax: (219) 926-9775

www.IN.gov/dnr/lakemich

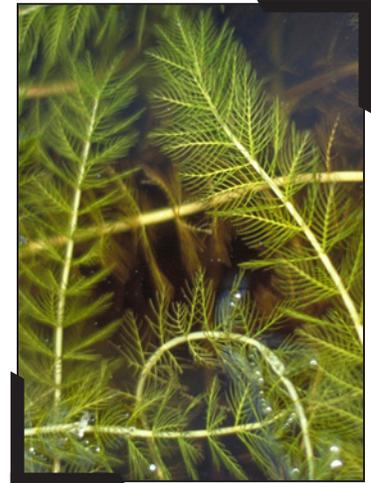
CLEAN BOATER TIP SHEET



Aquatic Invasive Species

The waters of the Midwest are under attack by aquatic invasive species, also called “exotic” or “nonindigenous,” because they are not native to our waters. Many came from Europe and Asia in the ballast waters of ships, and they are spreading at alarming rates. In several cases, they are having negative impacts on our native species and habitats.

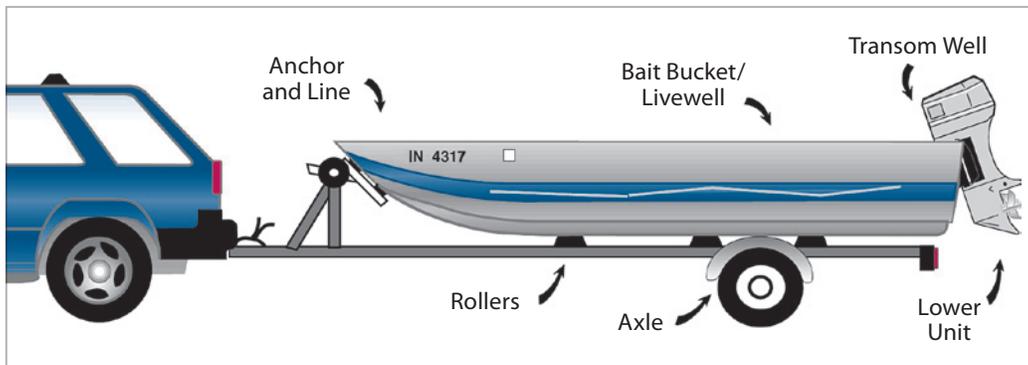
Some of these species are spreading as “hitchhikers” on boats and other recreational equipment. Whenever you leave a body of water without cleaning your equipment, you may be taking one of these harmful organisms with you. If you then travel to other waterways, you could inadvertently be spreading that invader. You, as a boater on Indiana water, can be an active steward of this valuable resource by implementing these practices:



Eurasian Watermilfoil (Source: Alison Fox, University of Florida, Bugwood.org)

Before Leaving the Boat Launch

- Inspect your boat, trailer and equipment and remove any plants, sediment and animals (see illustration below).
- Drain, on land, all water from the motor, livewell, bilge and transom well.
- Empty your bait bucket on land to help prevent the spread of invasive species and fish diseases.



Source: Minnesota Department of Natural Resources



CLEAN BOATER TIP SHEET Aquatic Invasive Species

After Leaving the Boat Launch

- Wash your boat, tackle, trailer and other equipment with 104° tap water or a high-pressure sprayer to kill any exotic species not visible at the boat launch. Or, allow your boat and other equipment to thoroughly dry for at least five days before moving to another body of water—some invasives can survive for long periods of time out of water.
- If you have used your watercraft on the Great Lakes, where a fish disease called viral hemorrhagic septicemia has spread, disinfect the outside and inside of your watercraft and your gear after using them. Mix 1 cup bleach in 10 gallons of water and brush/mop watercraft and trailer surfaces. Test dilute bleach solution in an inconspicuous location prior to applying to the entire watercraft and trailer. Keep the surface wet for five minutes, then rinse with clean water. Disinfection should occur away from lakes, rivers and storm drains because chlorine is toxic to aquatic life.



Two bighead carp demonstrating a size comparison (Source: David Riecks, University of Illinois at Urbana-Champaign, Illinois-Indiana Sea Grant College Program)

Other Helpful Practices

- Do not use fish parts as bait or chum. This practice helps prevent the spread of viral hemorrhagic septicemia and other fish diseases.
- Help prevent the spread of invasive species and fish diseases by not transferring fish, fish eggs or other aquatic organisms between waterways. Private pond owners who fish on Indiana's or other states' waterways would also benefit from the same advice.
- Learn what aquatic invasive species look like by viewing images at www.IN.gov/dnr/3123.htm and the websites listed on this page. Become familiar with Eurasian Watermilfoil, Round Goby, Zebra Mussel, Spiny Waterflea, Bighead Carp, Silver Carp, Phragmites and Purple Loosestrife, to name a few. Know which waterways are infested and report any new infestation to the Illinois-Indiana Sea Grant at (847) 872-8677 or the Indiana Department of Natural Resources' (IDNR) Division of Fish and Wildlife at (317) 234-3883.
- Talk with the staff of IDNR's Division of Fish and Wildlife and the Illinois-Indiana Sea Grant for further recommendations on controlling the spread of aquatic invasive species and any permit requirements before applying any control methods.

For More Information on Aquatic Invasive Species

Preventing the spread of aquatic invasive species:
www.protectyourwaters.org

Invasive species:
www.IN.gov/dnr/3123.htm

Illinois-Indiana Sea Grant:
www.iisgcp.org

APPENDICES L – N



Appendix L

Additional Contact Information..... 193

Appendix M

Emergency Planning and Community Right to Know Act of 1986 197

Appendix N

References 203

This page was intentionally left blank.

APPENDIX L

Additional Contact Information

Subject	Agency or Organization	Contact Information
Air Quality	Indiana Department of Environmental Management – Office of Air Quality	(317) 233-0178 or toll-free at (800) 451-6027, press 0 and request ext. 3-0178
Aquatic Invasive Species	Indiana Department of Natural Resources – Division of Fish and Wildlife	(317) 234-3883
	Illinois-Indiana Sea Grant	(847) 872-8677 or www.iisgcp.org
	Protect Your Waters	www.protectyourwaters.org
Boater Education Course Information	Indiana DNR – Division of Law Enforcement	http://boat-ed.com/indiana
Clean Marina Program	Indiana DNR – Lake Michigan Coastal Program	(219) 921-0863 or www.IN.gov/dnr/naturepreserve/4747.htm
Clean Vessel Act Pumpout Program	IDEM – Office of Pollution Prevention and Technical Assistance	(800) 988-7901 or (317) 233-6663
Coastal Dynamics – Lake Michigan	Indiana DNR – Division of Water, Lake Michigan Specialist	(219) 874-8316
Coastal Resource Management	Indiana DNR – Lake Michigan Coastal Program	(317) 233-0132 www.IN.gov/dnr/lakemich
Compliance (Technical)	IDEM – Office of Land Quality, Technical Compliance Section	(317) 308-3040 or toll-free at (800) 451-6027, press 0 and request ext. 308-3040
<i>Confidential</i> Compliance and Technical Assistance Program	IDEM – Office of Pollution Prevention and Technical Assistance	(800) 988-7901 or (317) 232-8172
Construction, Permitting, Wastewater Treatment & Sanitary Sewers	IDEM – Office of Water Quality	(317) 232-8660 or toll-free at (800) 451-6027, press 0 and request ext. 2-8660
Dredging, Fill or Construction in “Waters of the State” or “Waters of the U.S.”	Indiana DNR – Division of Water	(877) 928-3755 or (317) 232-4160
	IDEM – Section 401 Water Quality Certification Program	(317) 233-8488
	United States Army Corps of Engineers – District Offices	www.usace.army.mil/locations.aspx

APPENDIX L

Additional Contact Information

Subject	Agency or Organization	Contact Information
Emergency Hotline	IDEM's Spill 24-Hour Emergency Hotline	(317) 233-7745 (local and out-of-state) or toll-free at (888) 233-7745 (in-state only)
Emergency Response	IDEM – Office of Land Quality, Emergency Response	(317) 308-3017 or toll-free at (800) 451-6027, press 0 and ask for ext. 308-3017
Endangered Species Act	U.S. Fish & Wildlife Service, Northern Indiana Sub-office	(219) 983-9753
Fire and Building Safety	Indiana Department of Homeland Security – Division of Fire & Building Safety	Indiana Government Center South 402 West Washington St., Room E-241 Indianapolis, IN 46204-2739 Phone: (317) 232-2222 or (800) 423-0765 Fax: (317) 233-0307 www.IN.gov/dhs
Fish and Wildlife	Indiana DNR – Division of Fish & Wildlife	(317) 232-4080
	U.S. Fish & Wildlife Service, Northern Indiana Sub-office	(219) 983-9753
	U.S. Fish & Wildlife Service, Bloomington Ecological Services Field Office	(812) 334-4261
Hazardous Waste	IDEM – Office of Land Quality	(317) 232-8941
Health and Safety	Indiana Department of Labor – INSafe Division INSafe is an excellent tool for Indiana small business in any industry. INSafe's goal is to assist employers in becoming self-sufficient in the implementation of safety and health programs.	402 West Washington Street, Room W195 Indianapolis, Indiana 46204 Phone: (317) 232-2655 Fax: (317) 233-1868 www.IN.gov/dol/insafe.htm
Household Hazardous Waste Collection	Directory of local household hazardous waste collection sites	www.IN.gov/recycle/5724.htm
	Lake County Solid Waste Management District	(219) 769-3820

APPENDIX L

Additional Contact Information

Subject	Agency or Organization	Contact Information
Household Hazardous Waste Collection <i>(continued)</i>	Solid Waste District of LaPorte County	(800) 483-7700
	Recycling & Waste Reduction District of Porter County	(219) 465-3694
Indiana Department of Environmental Management's Regional Offices	Northern Regional office (South Bend)	(574) 245-4870 or toll-free at (800) 753-5519
	Northwest Regional Office (Merrillville)	(219) 757-0265 or toll-free at (888) 209-8892
	Southeast Regional Office (Brownstown)	(812) 358-2027 or toll-free at (877) 271-0074
	Southwest Regional Office (Petersburg)	(812) 380-2305 or toll-free at (888) 672-8323
Poaching/Polluting	Indiana DNR – Division of Law Enforcement	1-800-TIP-IDNR or www.IN.gov/dnr/lawenfor/2755.htm (list of districts and headquarters)
	Indiana DNR – Division of Law Enforcement District 10 Headquarters 100 W. Water St. Michigan City, IN 46360	(219) 879-5710 or 1-800-TIP-IDNR
Publicly Owned Treatment Works (POTW) (i.e., wastewater treatment plant)		www.IN.gov/idem/4882.htm (list of the 45 POTWs with approved wastewater pretreatment programs)
Solid Waste (trash and recycling)	Directory of Indiana Solid Waste Management Districts	www.IN.gov/recycle/5758.htm
	Directory of local household hazardous waste collection sites	www.IN.gov/recycle/5690.htm
	Lake County Solid Waste Management District	(219) 769-3820
	Solid Waste District of LaPorte County	(800) 483-7700
	Recycling & Waste Reduction District of Porter County	(219) 465-3694

Subject	Agency or Organization	Contact Information
Solid Waste Compliance	IDEM – Office of Land Quality, Solid Waste Compliance Section	(317) 308-3045 or toll-free at (800) 451-6027, press 0 and request ext. 308-3045
Solid Waste Management Districts	Solid waste management districts assist with household hazardous waste and recycling and provide waste handler contacts. Some also assist conditionally exempt small quantity generators.	www.IN.gov/recycle/5758.htm (directory of Indiana solid waste management districts)
Spill Reporting	IDEM’s emergency response and spill reporting hotline	(317) 233-7745 or (888) 233-7745 (toll-free in Indiana)
	Other state and federal agencies	See the Emergency Response Phone Directory in Appendix F
Storm Water Run-off Regulations	IDEM – Office of Water Quality, Wet Weather Section	(317) 233-1864 (Rule 5) (317) 233-0202 (Rule 6) (317) 234-1601 (Rule 13)
Transportation	Indiana Department of Transportation (INDOT)	100 N. Senate Ave., Room IGCN 755 Indianapolis, IN 46204 (317) 232-5533 www.IN.gov/indot/index.htm
Underground Storage Tanks	IDEM – Office of Land Quality, Underground Storage Tanks	(317) 308-3039
Volunteer Water Quality Monitoring	Indiana DNR – Hoosier Riverwatch	(317) 541-0617 www.IN.gov/dnr/nrec/3046.htm
Water Quality (General Information)	IDEM – Office of Water Quality	(317) 232-8476 or toll-free at (800) 451-6027, press 0 and request ext. 2-8476
Water Quality Data (Water Chemistry, Biological, and Habitat)	IDEM – Office of Water Quality Assessment Branch	(317) 308-3173
	Indiana DNR – Division of Fish and Wildlife	(317) 232-4080
	Indiana DNR – Hoosier Riverwatch	(317) 541-0617 or www.IN.gov/dnr/nrec/3046.htm
	U.S. Geological Survey	(317) 290-3333

APPENDIX M

Emergency Planning and Community Right to Know Act of 1986

Superfund Amendments and Reauthorization Act of 1986 (SARA Title III)

Introduction

The Emergency Planning and Community Right to Know Act of 1986 (EPCRA), found in Title 40, Part 355, of the Code of Federal Regulations (40 CFR 355), is a federal law that is enforced by the United States Environmental Protection Agency and managed by the state emergency response commission and local emergency planning committees. EPCRA applies to the storage and handling of hazardous materials. EPCRA requires that facilities report storage of certain chemicals above a certain amount to the state and local authorities. This law is called both EPCRA and SARA Title III. In this section, it will be referred to as EPCRA.

The purpose of EPCRA is twofold:

1. "Encourage and support industry's emergency planning for response to chemical accidents (in coordination with state and local governments) through emergency planning and emergency notification."
2. "Provide local governments and the public with information about possible chemical hazards in their communities by requiring facilities to (a) report to their state emergency response commission, local emergency planning committees, and local fire departments their hazardous chemical inventory, and (b) report to federal and state authorities their toxic chemical releases and other waste management practices" (U.S. EPA, 1999).

Listed below are the different sections of EPCRA regulations.

- Emergency planning (EPCRA Sections 301-303)
- Emergency release notification (EPCRA Section 304)
- Hazardous chemical inventory and reporting (material safety data sheet and Tier reporting) (EPCRA Sections 311 and 312)
- Toxic chemical release reporting (EPCRA Section 313)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA Section 103)
- Sections 301-303, 311, and 312 are related to chemicals present in a facility. Section 313 includes regulations related to chemicals manufactured, processed, or otherwise used in a facility. Regulations related to emergency notification of a release of specific substances are described in the EPCRA Section 304.

Emergency Planning

(EPCRA Sections 301-303)

The emergency planning section of the law is designed to help communities prepare for and respond to emergencies involving hazardous substances. Every community in the United States must be part of a comprehensive plan. It starts at the state level with a state emergency response commission (SERC). In turn, the SERC designates local emergency planning districts. For each district, the SERC appoints, supervises and coordinates the activities of a local emergency planning committee (LEPC). The LEPC must, in turn, develop an emergency response plan for its district and review it annually. The membership of the LEPC includes representatives of public and private organizations as well as a representative from every facility subject to EPCRA emergency planning requirements.

What are the required elements of a community emergency response plan?

- Identify facilities and transportation routes of extremely hazardous substances;
- Describe emergency response procedures, on and off site;
- Designate a community coordinator and facility coordinator(s) to implement the plan;
- Outline emergency notification procedures;
- Describe how to determine the probable affected area and population by releases;
- Describe local emergency equipment and facilities and identify the persons responsible for them;
- Outline evacuation plans;
- Provide a training program for emergency responders (including schedules); and,
- Provide methods and schedules for exercising emergency response plans.

What do facilities need to report?

If you store any of the 385 listed “extremely hazardous substances” in excess of the listed threshold planning quantity, you are required to complete a “Section 302 – Emergency Planning Notification Form” and submit it to the Indiana Emergency Response Commission AND your local emergency planning district within 60 days of when the substance becomes present at the facility. If you are required to file a “Section 302 – Emergency Planning Notification Form” you must also designate a facility emergency coordinator who will be the emergency contact person for your facility.

For the U.S. Environmental Protection Agency’s “Alphabetical Order List of Extremely Hazardous Substances,” refer to Appendix A of 40 CFR 355 which can be found at ecfr.gpoaccess.gov.

What might be reportable under Section 302 at your marina?

- **Sulfuric Acid** [Chemical Abstract Service (CAS) Number 7664-93-9]: Sulfuric acid, which is found in lead acid batteries, is reportable under Section 302 if your marina maintains an inventory of sulfuric acid in excess of 1,000 pounds. This amount includes all the sulfuric acid in batteries stored on site AND on your customers’ boats. The average small boat battery contains approximately five pounds of sulfuric acid. Therefore, if you have over 200 batteries at your facility, including batteries for sale, batteries stored for recycling and batteries on your customers’ boats, you must file a “Section 302 – Emergency Planning Notification Form.”
- **Chlorine** (CAS Number 7782-50-5): If you store chlorine, a water treatment chemical, in a liquid, granular or gaseous state in excess of 100 pounds, you must file a “Section 302 – Emergency Planning Notification Form.” Pool tablets and powdered chlorine typically are NOT the same thing. Please look at the CAS number on the product.

Accidental Release Notification

(EPCRA Section 304)

Facilities must immediately notify their local emergency planning committee and the Indiana Emergency Response Commission if there is a release of a hazardous substance in excess of the minimum reportable quantity set under EPCRA or in excess of the reportable quantity of a chemical listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (40 CFR 302.4). If the spill meets the requirements set forth in 40 CFR 110 and 40 CFR 116 it may be reportable to the National Response Center (NRC) at (800) 424-8802. If you are unsure whether to report the spill to the NRC, it is better to report than not. Not reporting can result in fines.

Under EPCRA, you are not required to report a spill to the federal government above the reportable quantity if the release:

- Does not affect persons off-property;
- Is federally permitted;
- Is a continuous release, except when statistically significant;

- Is of certain nuclear material;
- Results from pesticide or fertilizer application;
- Is petroleum, unless an “extremely hazardous substance” is present (Note: This does not exempt you from reporting an oil spill to the state and federal authorities as required by the spill prevention, control and countermeasures plan.

Notification should be made first by telephone, radio or in person. If the spill was a result of a transportation incident, notification requirements can be met by calling 911. The notification needs to include:

- The chemical name;
- An indication of whether the substance is extremely hazardous;
- An estimate of the quantity released;
- The time and duration of the release;
- Whether the release occurred into air, water, and/or land;
- Any known or anticipated acute or chronic health risks associated with the emergency and, where necessary, advice regarding medical attention for exposed individuals;
- Proper precautions, such as evacuation or sheltering in place; and
- The name and telephone number of the contact person.

A written notice to the Indiana Emergency Response Commission and your local emergency planning committee must be sent as soon as practicable after the release. The notice should include an update of information included in the initial notice and response actions that were taken.

Reporting Hazardous Chemicals “Community Right to Know Requirements”

EPCRA Section 311 (List of Chemicals Form)

The Occupational Safety and Health Administration (OSHA) requires employers to keep copies of materials safety data sheets (MSDSs) for each hazardous chemical used or stored on site. The MSDSs need to be kept in a location available to all employees and kept current. Distributors are required to provide MSDSs for hazardous substances (29 CFR 1910-1200).

If you have chemicals on site that are required under OSHA to have an MSDS and you meet one of these following conditions, you are required to complete a “Section 311 – List of Chemicals Form.”

1. You store one or more substances listed as an “extremely hazardous substance” in quantities equal to or greater than the listed “threshold planning quantity” or 500 pounds, whichever is less. The list of “extremely hazardous substances” and their “threshold planning quantities” can be found in Appendix A of 40 CFR 355 at ecfr.gpoaccess.gov.
2. You store 10,000 pounds or more and any hazardous substance requiring an MSDS.

EPCRA Section 312 – Annual Tier II Reporting

If you fall into one of the above categories and are subject to Section 311 reporting requirements, you must also submit an annual “Tier II Emergency and Hazardous Chemical Inventory” form. This form requires that you inventory your facility’s hazardous chemicals and identify their storage locations. The Tier II report must be submitted to the Indiana Emergency Response Commission, your local emergency planning committee, and your local fire department each year by March 1st.

What might a marina have to report under Section 311 and Tier II?

- **Gasoline, Diesel Fuel, Propane or Fuel Oil:**
If you store gasoline, diesel fuel, propane or fuel oil (all of which require MSDSs) in excess of 10,000 pounds, you must report under Section 333 and Tier II. This amount does not include fuel in boats dockside. According to the MSDS, gasoline weighs about 6.19 pounds per gallon, diesel around 7.05 pounds per gallon, and propane around 4.23 (60° F) pounds per gallon. If you store over 1615 gallons of gasoline on site, you would need to report. This does not include the fuel in the boats dockside.

- **Sulfuric Acid:**
You must also report the sulfuric acid in lead acid batteries if your marina maintains an inventory of sulfuric acid in excess of 500 pounds. The average 12-volt boat battery contains 2-4 quarts of sulfuric acid. Larger yacht-type boats may have significantly larger batteries. In the calculation for the sulfuric acid in batteries, you should add together all batteries stored (before or after use) and used on site for commercial purposes (batteries for sale, forklift truck batteries and generator batteries). This reporting requirement does not apply to the batteries that boaters can physically move on and off their boats.
- **Lead:**
You may also have to report for lead. The amount of lead found in typical marine batteries can vary depending on the make and model. The typical battery contains 60% lead. If you add all the lead in the batteries you store (before or after use) and use on site for commercial purposes (batteries for sale, forklift truck batteries and generator batteries) and it totals 500 pounds or more, you will need to include lead in the Tier II report.

Toxic Release Inventory EPCRA Section 313

It is unlikely that any marina in Indiana will be subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986. If you meet all of the following criteria, you must file a “Toxic Chemical Release Inventory Form” by July 1st each year to both the Indiana Toxic Release Inventory (TRI) Data Processing Center (formerly the EPCRA Reporting Center) and U.S. EPA’s EPCRA Reporting Center.

- Your facility must be included in the Standard Industrial Classification (SIC) Codes 10 (except 1011, 1081, 1094), 12 (except 1241), 20-39, and with limitations 4911, 4931, 4939, and 4952. A marina may be listed under major group 3700 if it engages in manufacturing equipment for transportation of passengers and cargo by water such as ships and boats
- You have 10 or more full-time employee equivalents (a total of 20,000 or greater; see 40 CFR 372.2)
- You manufacture, process or otherwise use an EPCRA Section 313 chemical in quantities greater than the established threshold in the course of a calendar year.

For More Information

Contact the Emergency Planning and Community Right to Know Information Hotline at (800) 424-9346 or (800) 535-7672 (via Telecommunications Device for the Deaf) for more information on EPCRA, TRI and the Community Right to Know Act, or visit the Web at:

[www.epa.gov/emergencies/
content/epcra/index.htm](http://www.epa.gov/emergencies/content/epcra/index.htm)

APPENDIX N

References

- Green Bay Metropolitan Sewage District. *Non-Toxic Alternatives: Cleaning Products*. Green Bay, WI. www.gbmsd.org/residents/household-hazardous-waste/alternatives.
- Illinois-Indiana Sea Grant. Pat Charlebois. Text in *Exotic & Nuisance Aquatic Species*. 2007. Zion, Illinois.
- Indiana Department of Environmental Management (IDEM). *Compliance Manual for Indiana Auto Salvage Facilities*. April, 2007
- Manasquan Watershed Management Group. *Clean Marina Initiative Guidebook*. 2001. Eatontown, NJ.
- Oregon State Marine Board. August, 2005. *Oregon Clean Marina Guidebook*. Salem, OR.
- Santa Clara County Hazardous Materials Advisory Committee. *Hazardous Waste Survival Guide Online! A Small & Medium Business Resource for Hazardous Waste Reduction Management*. Santa Clara County, CA.
- United States Environmental Protection Agency (U.S. EPA), Office of Water. November, 2001. *National Management Measures to Control Nonpoint Source Pollution from Marinas and Recreational Boating*. EPA 841-B-01-005. Washington, DC.



♻️ Printed on recycled paper containing 30% post-consumer fiber.