



DANGEROUS GOODS ADVISORY COUNCIL

A KNOWLEDGE COMMUNITY PROMOTING THE SAFE TRANSPORTATION OF DANGEROUS GOODS

Panel Presentation: Harmonization Between GHS Aquatic Toxicity Classification and IMDG Code, IATA DGR, and National Transport Classifications

“How GHS Aquatic Toxicity has been Implemented in Transport”

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Terminology

- In transport, the GHS hazard class “Hazardous to the Aquatic Environment” is called “Environmentally Hazardous Substances”.
- Sometimes the phrase “aquatic environment” is included in parentheses at the end.
- Outside the regulations, it is usually reduced to “EHS” for convenience.





Terminology

- In transport, “Environmentally Hazardous Substances” IS a classification, but it IS NOT a hazard class.
- There are others like this, for example:
 - Marine Pollutants (MP),
 - Elevated Temperature Materials (ETM).
 - Materials Toxic by Inhalation (TIH materials),
 - Hazardous Substances (HS),





Various TDG Regs Take Different Approaches to Implementation

- Some transport authorities require DG of any hazard class to also be identified as an environmental hazard when applicable.
- Some transport authorities require applicable environmental hazard(s) to be identified only if the material is not otherwise regulated as DG.





Scope of Discussion

- This presentation
 - will discuss how the UN TDG Sub-Committee has incorporated “Hazardous to the Aquatic Environment” into the UN Model Regulations,
 - then consider the variations in how PHMSA, ICAO and IMO have implemented these new provisions.





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UN MODEL REGULATIONS





UN Model Regulations

- Did not have existing specific environmental provisions to consider.
- Adopted EHS.
- Applies to all modes.
- Criteria-based only, no list.
- **Applies to non-DG only.**
 - (If is otherwise a DG, EHS not relevant.)





UN Model Regulations

- If not otherwise a DG, apply criteria.
- If non-DG meets EHS criteria:
 - Classify as DG of Class 9, PG III.
 - Designate as Environmentally Hazardous Substance. (Does not use the term “Marine Pollutant.”)





UN Model Regulations

–Assign the appropriate of:

- UN3082, Environmentally hazardous substances, liquid, n.o.s., (add technical name(s)), OR,
- UN3077, Environmentally hazardous substances, solid, n.o.s., (add technical name(s)).



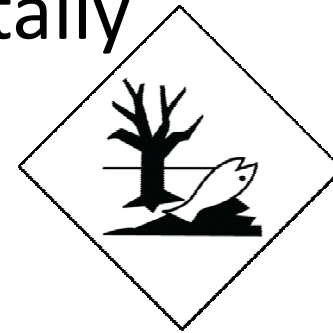


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UN Model Regulations

- Must use DG packaging.
- Must use DG hazard communication.
 - DG shipping description on transport document (no additional unique EHS entry).
 - DG marking plus Environmentally Hazardous Substances mark.
 - DG labels and placards.





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UN Model Regulations

- Important exceptions available for small packages less than 5L/5kg.





HMR

- Had two pre-existing environmental classifications at the time the UN Model Regulations adopted EHS:
 - Marine Pollutants.
 - Hazardous Substances. (Not synonymous with Environmentally Hazardous Substances.)
- Both use a list-based classification system.





HMR

- Did not adopt Environmentally Hazardous Substances.
- Did not make any change at all to Hazardous Substances.
- Did make one change to the hazard communication requirements for Marine Pollutants.





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HMR

- Changed the Marine Pollutant mark:

OLD



“Fish and Chips”

NEW



“Poor, poor Mark”





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Note:

- In the IMDG Code and the HMR this is the “Marine Pollutant” mark.
- In all the others, it is the Environmentally Hazardous Substances mark.





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HMR

- In addition, HMR authorized the voluntary use of IMDG Code MP classification (which incorporates EHS).
- For purely domestic transportation within the U.S., this has had very little impact.
- Important exceptions for MP by ground and air in non-bulk packages remain.





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IMDG CODE





IMDG Code

- Already had an environmental classification called Marine Pollutants.
- Adopted EHS.
- Incorporated EHS into existing Marine Pollutant requirements.
 - (i.e., if something is EHS, it is MP)





IMDG Code

- Refers to them as Marine Pollutants, not Environmentally Hazardous Substances.
 - (i.e., EHS is a category of MP, not a designation in its own right)
- Applies to both DG and non-DG.





IMDG Code

- For classification, uses a combination of list and criteria.
 - IMO assumed MPs on existing list would meet EHS criteria, therefore retained a modified version of the existing list of Marine Pollutants.





IMDG Code

- Classification by List:
 - List of Marine Pollutants is incorporated into the Dangerous Goods List.
 - List is indicative, not definitive.
 - MIGHT indicate that something IS a MP.
 - If listed as a MP, must classify as MP.
 - List does not identify ALL MPs.
 - If not listed as MP, must apply EHS criteria.





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IMDG Code

- Classification by Criteria if:
 - Listed on DGL but not designated as MP.
 - Unlisted.
 - Mixture.





IMDG Code

- Because classification has transitioned from definitive list to indicative list combined with criteria, the term “Severe Marine Pollutant” is no longer relevant and the “PP” designations were changed to “P”.





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IMDG Code

- Must classify as a Marine Pollutant if
 - Listed as MP, or
 - Meets EHS criteria.





IMDG Code

- If a DG must be classified as MP, there is very little impact (cont'd):
 - Additional hazard communication:
 - Additional entry in shipping description.
 - (No change to labels and placards.)
 - Additional MP mark.





IMDG Code

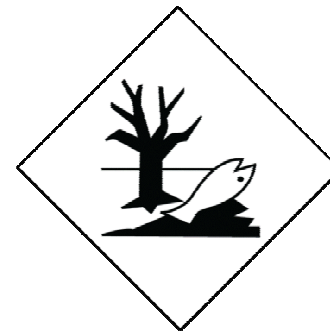
- If non-DG must be classified as MP, there is a significant impact:
 - Classify as DG of Class 9, PG III.
 - Assign the appropriate of:
 - UN3082, Environmentally hazardous substances, liquid, n.o.s., (add technical name(s))
 - UN3077, Environmentally hazardous substances, solid, n.o.s., (add technical name(s))





IMDG Code

- If non-DG must be classified as MP, there is a significant impact (cont'd):
 - Must use DG packaging.
 - Must use DG hazard communication.
 - DG shipping description on transport document plus additional MP entry.
 - DG markings plus MP mark.
 - DG labels and placards.





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IMDG Code

- Important exceptions available for small packages less than 5L/5kg.





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ICAO TECHNICAL INSTRUCTIONS AND IATA DANGEROUS GOODS REGULATIONS





ICAO TI & IATA DGR

- Did not have existing specific environmental provisions to consider.
- Adopted EHS.
- Aligned with UN Model Regulations.
- **Applies to non-DG only.**
 - (If otherwise is a DG, EHS not relevant.)
- Classification by criteria only, no list.





ICAO TI & IATA DGR

- If not otherwise a DG, apply UN EHS criteria.
- If non-DG meets EHS criteria:
 - Classify as DG of Class 9, PG III.
 - Designate as Environmentally Hazardous Substance. (Does not use the term “Marine Pollutant”.)





ICAO TI & IATA DGR

–Assign the appropriate of:

- UN3082, Environmentally hazardous substances, liquid, n.o.s., (add technical name(s)), OR,
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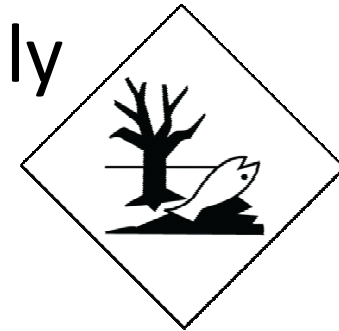


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ICAO TI & IATA DGR

- Must use DG packaging, quantity limits, aircraft restrictions (PAX v. CAO).
- Must use DG hazard communication.
 - DG shipping description on transport document (no additional unique EHS entry.
 - DG marking plus Environmentally Hazardous Substances mark.
 - DG labels and placards.





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ICAO TI & IATA DGR

- Important exceptions available for small packages less than 5L/5kg.





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