TOWING VESSEL SAFETY & COMPLIANCE

Peter Squicciarini
U.S. Coast Guard Atlantic Area
Towing Vessel Program Coordinator
(757) 398-7720
peter.d.squicciarini@uscg.mil
COMPLIANCE

“It’s Not Just A Good Idea…It’s The Law”
-Albert Einstein (E=MC2)

SAFETY

“Blood Is A Big Expense”
-GODFATHER
CAVEMAN SETTING OUT ON FIRST TOWING VESSEL VOYAGE

VOYAGE ENDS IN FLAMES RESULTING IN DISCOVERY OF FIRE

FIRST MARINE ACCIDENT

United States Coast Guard

Homeland Security
Standard Safety Metrics

- Crew Fatalities
- Vessel Incidents
- Crew Injuries
Crew Fatalities, 1994 - 2009

Crew Fatalities, By Accident Type, 2000 - 2009

- Fall into water: 63 (56%)
- Fall onto surface: 6 (5%)
- Crushed between objects: 6 (5%)
- Line handling/caught in lines: 9 (8%)
- Struck by Moving Object: 6 (5%)
- Other: 10 (9%)
- Asphyxiation: 13 (12%)

Total = 113
# Injury Severity Scale

## Minor
The injury is minor or superficial. No professional medical treatment was required.

Examples: Minor/superficial scrapes (abrasions); minor bruises; minor cuts; digit sprain; first degree burn; minor head trauma with headache or dizziness; minor sprain/strain

## Moderate
The injury exceeds the minor level, but did not result in broken bones (other than fingers, toes or nose), loss of limbs, severe hemorrhaging, muscle, nerve, tendon or internal organ damage. Professional medical treatment may have been required. If so, the person was not hospitalized for more than 48 hours within 5 days of the injury.

Examples: Broken fingers, toes or nose; amputated fingers or toes; degloving of fingers or toes; dislocated joint; severe sprain/strain; second/third degree burns covering 10% or less of body (if face included, move up one category); herniated disc

## Serious
The injury exceeds the moderate level and requires significant medical/surgical management. The person was not hospitalized for more than 48 hours within 5 days of the injury.

Examples: Broken bones (other than fingers, toes, or nose); partial loss of limb (amputation below elbow/knee); degloving of entire hand/arm or foot/leg; second/third degree burns covering 20-30% of body (if face included, move up one category); bruised organs

## Severe
The injury exceeds the moderate level and requires significant medical/surgical management. The person was hospitalized for more than 48 hours within 5 days of the injury and, if in intensive care, was in for less than 48 hours.

Examples: Internal hemorrhage; punctured organs; severed blood vessels; second/third degree burns covering 30-40% of body (if face included, move up one category); loss of entire limb (amputation of whole arm/leg)

## Critical
The injury exceeds the moderate level and requires significant medical/surgical management. The person was hospitalized and in intensive care for more than 48 hours within 5 days of the injury.

Examples: Spinal cord injury; extensive second- or third-degree burns; concussion with severe neurological signs; severe crushing injury; internal hemorrhage; second/third degree burns covering 40% or more of body; severe/multiple organ damage
INJURY SEVERITY

Towing Injuries By Severity, 2006 - 2009

Total = 644

1 - Minor, 166, 25%
2 - Moderate, 313, 47%
3 - Serious, 140, 21%
4 - Severe, 33, 5%
5 - Critical, 10, 2%
# Severity Classes for Vessel Casualties

<table>
<thead>
<tr>
<th>Incident Severity</th>
<th>Description</th>
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| **Low**           | Damage: $0 - $50,000 or not reported  
No injuries or deaths  
Pollution: 0 - 10 gallons of oil spilled  
CG Casualty Class: None/Routine |
| **Medium**        | Damage: $50,001-$250,000  
No injuries or deaths  
Pollution: 11-1000 gallons of oil spilled  
CG Casualty Class: “Significant” |
| **High**          | Damage: $250,001 or more  
ANY injuries or deaths  
Pollution: 1,001 or more gallons spilled  
Casualty Class “Serious” or “Major” |
Vessel Casualties, 1994 - 2009

Incidents

Year


High

Medium

Low
Medium & High Severity Vessel Incidents, 2000 - 2009

- Allision: 557
- Material Failure: 287
- Collision: 218
- Grounding: 180
- Vessel Maneuverability: 144
- Sinking: 109
- Flooding: 97
- Fire: 84
- Capsize: 23
- Other: 65
Casual Observations Suggest*

Majority of Incidents Involve Vessels:
- Under 100 FT LOA
- Under 200 GRT
- Under 2000HP
- Under 9HP (or less)/Ton
- Allisions biggest problem
- Major Causal Factor is Human Error

*unofficial review
TOP TEN SAFETY DEFICIENCIES

Top Ten “Towing Vessel Deficiencies” include the following:

- General Alarm – missing placards and visual indicators
- Running Lights – inoperable or improper bulbs
- Remote Fuel Shut-Off valves -- not operable/missing at remote location
- Fire Detecting Control Panel – improper functioning
- Life Buoys – improper or faded markings
- Fire Pumps – lack of remote start fixed pumps/storage of portable pumps
- Vessel Response Program – equipment and trained crew
- Vessel Security Plan – lack of plan and / or drills
- Wiring Materials & Installs – exposed wiring / loose junction boxes
- Guards for Exposed Hazards – missing machine guards
Towing Vessel Bridging Program (TVBP)
(Sub-Chapter “C” COMPLIANCE)
Pre-Subchapter “M”  Post-Subchapter “M”

UNINSPECTED TOWING VESSEL

SAFETY EXAMINATION

UTV

ROUTE

☑ Inland
☑ Coastal
☑ Oceans
☑ Great Lakes

☑ MTSA Regulations Apply

EXPIRES

☐ 2012
☐ 2013
☐ 2014
☐ 2015

United States Coast Guard

Homeland Security

Certificate of Inspection

United States of America
Department of Homeland Security
United States Coast Guard

Certificate of Inspection

UTV

UNITED STATES

SAFETY EXAMINATION

ROUTE

☑ Inland
☑ Coastal
☑ Oceans
☑ Great Lakes

☑ MTSA Regulations Apply

EXPIRES

☐ 2012
☐ 2013
☐ 2014
☐ 2015

United States Coast Guard

Homeland Security
Current TVBP Plan
A phased approach...

Phase I
Summer 2009
- Outreach & Education
- Industry Initiated Exams
- USCG Personnel Training

Phase II
18-24 Months later
- Risk Based Exams
- USCG Personnel Training (cont.)

Phase III
Sub-Chapter “M”
- COI Issuance
- USCG Personnel Training
TOWING VESSEL
NATIONAL CENTER OF EXPERTISE

VISION
Be the Coast Guard’s forward thinking center for the towing industry to keep all towing industry stakeholders well informed and prepared to operate safely and compliant.

MISSION
Provide technical and operational advice to both the Coast Guard AND industry to enhance collective competencies.
FUNCTIONS

- Facilitate Towing Vessel Bridging Program.

- Train Coast Guard Examiners by developing and teaching relevant courses.

- Conduct Outreach and foster partnerships.

- Repository for policy and guidance.
FUNCTIONS (continued)

- Interpret or clarify policy, guidance, and regulations
- Ensure a high level of applied consistency CG-wide
- Gather, organize, provide statistical information
- Research towing vessel issues/onsite assistance
CONTACT TVCOE

Commanding Officer
CDR Greg Case
greg.d.case@uscg.mil

Technical Specialist
Mr. Bill Perkins
William.G.Perkins@uscg.mil

Towing Vessel National Center of Expertise
504 Broadway, Suite 101
Paducah, KY 42001
(270) 444-7715
Coast Guard Resources

USCG HOMEPAGE --- http://homeport.uscg.mil

Path = “Missions”>”Domestic Vessels”>“Uninspected Vessels”>”Towing Vessels”………

Of Importance See 2 Separate Items:

…>”Towing Vessel Bridging Program”>“UTV Exam Form” (.pdf)
AND/OR
…>“Requirements for Uninspected Towing Vessels Guide Book” (.pdf)

Contact: Peter Squicciarini = peter.d.squicciarini@uscg.mil

SECTOR HAMPTON ROADS = (757) 668-5528 /
William.P.Gilbert@uscg.mil