

U.S. Department  
of Transportation

**United States  
Coast Guard**



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DEPARTMENT OF TRANSPORTATION

U.S. COAST GUARD

STATEMENT OF REAR ADMIRAL WILLIAM F. MERLIN

HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES

SUBCOMMITTEE ON COAST GUARD AND NAVIGATION

FEDERAL BUILDING, NEW ORLEANS, LOUISIANA

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GOOD MORNING, MR. CHAIRMAN AND DISTINGUISHED MEMBERS OF THE SUBCOMMITTEE. I AM REAR ADMIRAL WILLIAM F. MERLIN, COMMANDER OF THE EIGHTH COAST GUARD DISTRICT. THANK YOU FOR THE OPPORTUNITY TO SPEAK TO YOU ON PIPELINE SAFETY AND ITS RELATIONSHIP TO THE NAVIGATION SAFETY OF VESSELS.

TO BEGIN, I REALIZE THAT THE TRAGIC INCIDENTS CONCERNING THE F/V NORTHUMBERLAND ON 3 OCTOBER 1989 AND THE SOUTH PASS 60B CASUALTY OF 19 MARCH 1989, WHICH BOTH RESULTED IN THE MULTIPLE LOSS OF LIFE FROM THE EXPLOSION OF NATURAL GAS PIPELINES, ARE OF GREAT INTEREST TO THIS COMMITTEE. THE INVESTIGATIONS OF THESE INCIDENTS BY THE NATIONAL TRANSPORTATION SAFETY BOARD, THE MINERALS MANAGEMENT SERVICE, AND THE U.S. COAST GUARD ARE NOT YET COMPLETE. THEREFORE, IT WOULD BE INAPPROPRIATE FOR ME TO SPECULATE ON THE FINDINGS OF THESE ONGOING INVESTIGATIONS.

HOWEVER, IT IS CLEAR FROM THESE RECENT PIPELINE INCIDENTS, AND THOSE IN PREVIOUS YEARS, THAT SUBMERGED PIPELINES POSE A POTENTIAL RISK TO NAVIGATION SAFETY, BUT THE EXTENT OF THAT RISK IS UNKNOWN.

THE COAST GUARD'S RESPONSIBILITIES IN ENSURING NAVIGATION SAFETY ARE SHARED BY THE OFFICE OF MERCHANT MARINE SAFETY, SECURITY, AND ENVIRONMENTAL PROTECTION AND THE OFFICE OF NAVIGATION SAFETY AND WATERWAYS SERVICES. THE MARINE SAFETY PROGRAM OVERSEES COMMERCIAL VESSEL INSPECTION, INVESTIGATION OF MARINE CASUALTIES, LICENSING OF MERCHANT MARINE PERSONNEL, PORT SAFETY AND SECURITY, AND POLLUTION PREVENTION AND RESPONSE. THE OFFICE OF NAVIGATION HAS RESPONSIBILITY FOR AIDS TO NAVIGATION, VESSEL TRAFFIC MANAGEMENT SUCH AS DESIGNATING SHIPPING FAIRWAYS, TRAFFIC SEPARATION SCHEMES, VESSEL TRAFFIC SERVICES OR VTS, AND OVERSIGHT OF BRIDGES WHICH CROSS U.S. NAVIGABLE WATERS. THE THRUST OF THESE TWO PROGRAM AREAS IS ORIENTED TOWARD REGULATING THE OPERATION, MANNING, MOVEMENT, AND EQUIPMENT OF VESSELS OPERATING IN U.S. WATERS AND TOWARD THE OPERATION OF WATERFRONT FACILITIES. WITH SPECIFIC REGARD TO PIPELINE SAFETY, THE COAST GUARD PROVIDES PERIODIC REVIEW AND COMMENT ON PIPELINE PERMIT PROPOSALS SUBMITTED BY OTHER FEDERAL AGENCIES, SUCH AS THE ARMY CORPS OF ENGINEERS, AND THE MINERALS MANAGEMENT SERVICE.

AS AN AGENCY TASKED WITH RESPONSIBILITY FOR NAVIGATION SAFETY, THE COAST GUARD IS GREATLY CONCERNED THAT FUTURE CASUALTIES COULD

OCCUR FROM VESSELS STRIKING SUBMERGED PIPELINES WHICH HAVE BEEN EXPOSED OVER THE YEARS BY COASTAL EROSION, BOTTOM DISTURBANCES, OR THE EFFECTS OF HURRICANES OR SCOURING FROM RIVER AND DELTA LEVEL FLUCTUATIONS. WHILE THE COAST GUARD HAS NO DIRECT REGULATORY AUTHORITY OVER THE DESIGN, INSTALLATION, AND INSPECTION OF PIPELINES, THE COAST GUARD IS VERY INSTRUMENTAL IN PROVIDING MARINERS WITH SPECIFIC PIPELINE HAZARD INFORMATION.

ONCE PIPELINE HAZARD INFORMATION IS MADE AVAILABLE TO THE COAST GUARD FROM INDUSTRY, STATE OR OTHER FEDERAL AGENCIES, WE HAVE SEVERAL AVENUES TO ADVISE MARINERS OF A PARTICULAR PIPELINE HAZARD. THE MOST COMMON APPROACH WOULD BE A NOTICE TO MARINERS.

THE COAST GUARD DISSEMINATES INFORMATION IN THE LOCAL NOTICES TO MARINERS CONCERNING AIDS TO NAVIGATION AND OTHER IMPORTANT INFORMATION WHICH MAY AFFECT NAVIGATION SAFETY, SUCH AS, OBSTRUCTIONS, CHANNEL DEPTHS, NAVAL OPERATIONS, AND DREDGING OPERATIONS. ON A WEEKLY BASIS, EACH COAST GUARD DISTRICT ISSUES A LOCAL NOTICE TO MARINERS WITH INFORMATION CONCERNING THE WATERWAYS WITHIN THE DISTRICT. THIS INFORMATION IS RECEIVED FROM OUR OWN COAST GUARD UNITS, AS WELL AS FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, THE NATIONAL OCEAN SERVICE, OTHER FEDERAL AGENCIES, STATE AGENCIES, AND THE GENERAL PUBLIC. THESE NOTICES ARE ESSENTIAL TO ALL MARINERS FOR THE PURPOSE OF KEEPING THEIR CHARTS AND OTHER NAUTICAL PUBLICATIONS UP-TO-DATE.

WHEN IMPORTANT NAVIGATION SAFETY INFORMATION IS RECEIVED A COAST GUARD BROADCAST NOTICE TO MARINERS IS MADE. THE BROADCASTS ARE ISSUED BY RADIO, UPON RECEIPT AND AT REGULAR INTERVALS THEREAFTER.

ANOTHER SOURCE OF INFORMATION ON NAVIGATION SAFETY HAZARDS IS THE DEFENSE MAPPING AGENCY'S WEEKLY NOTICE TO MARINERS WHICH CONTAINS INFORMATION RELATED TO OCEANGOING (DEEP DRAFT) OPERATIONS. INFORMATION CONCERNING FOREIGN WATERS IS ALSO INCLUDED. BECAUSE IT IS INTENDED FOR USE BY OCEANGOING VESSELS, MANY CORRECTIONS THAT AFFECT SMALL CRAFT NAVIGATION AND WATERS ARE NOT INCLUDED. INFORMATION CONCERNING SMALL CRAFT IS CONTAINED IN THE COAST GUARD LOCAL NOTICE TO MARINERS.

THE COAST GUARD AND DEFENSE MAPPING AGENCY NOTICES TO MARINERS MAY BE OBTAINED FREE OF CHARGE UPON REQUEST TO THE APPROPRIATE AGENCY.

IN ADDITION TO PROVIDING SAFETY OF NAVIGATION INFORMATION TO THE MARINER, THE COAST GUARD CAN TAKE ACTIVE STEPS TO CONTROL THE MOVEMENT OF VESSELS IN RESPONSE TO A SPECIFIC HAZARD. IN ORDER TO ENSURE NAVIGATION SAFETY, THE COAST GUARD DISTRICT COMMANDER OR THE LOCAL COAST GUARD CAPTAIN OF THE PORT CAN ESTABLISH A SAFETY ZONE IN THE VICINITY OF THE HAZARD. VESSEL OPERATIONS WITHIN THIS ZONE CAN BE CONTROLLED BY LIMITING VESSEL DRAFTS, TRANSIT SPEEDS,

ANCHORING, DELINEATING TRAFFIC LANES, OR BY PREVENTING VESSELS FROM ENTERING THIS ZONE. SAFETY ZONES ARE ESTABLISHED AS A TEMPORARY MEASURE TO ENSURE NAVIGATION SAFETY. THEY ARE TYPICALLY ESTABLISHED TO ALLOW EMERGENCY DREDGING OPERATIONS BY THE CORPS OF ENGINEERS, TO PREVENT VESSELS FROM DISTURBING CLEAN UP OPERATIONS FROM OIL/CHEMICAL SPILLS, OR IN THE CASE OF A SPECIFIC PIPELINE HAZARD, TO CONTROL VESSEL MOVEMENTS THROUGH AN AREA UNTIL THE HAZARD CAN BE CORRECTED.

BOTH THE NOTICE TO MARINERS AND THE ESTABLISHMENT OF SAFETY ZONES ARE EFFECTIVE METHODS BY WHICH THE COAST GUARD CAN ADVISE AND DIRECT MARINERS AWAY FROM PIPELINE HAZARDS. HOWEVER, NEITHER OF THESE METHODS SHOULD BE A SUBSTITUTE FOR THE PRUDENT MARINER'S RESPONSIBILITY TO MAINTAIN UP-TO-DATE CHARTS, OBTAIN LOCAL NAVIGATION KNOWLEDGE, AND MAINTAIN CURRENT NAVIGATIONAL REFERENCES SUCH AS THE COAST PILOT, NAVIGATION RULES OF THE ROAD, AND TIDE TABLES. NOR ARE THEY A SUBSTITUTE FOR ASSURING THAT NAVIGABLE WATERS ARE KEPT FREE OF UNREASONABLE OBSTRUCTIONS.

WITH ALL THIS IN MIND, THE COAST GUARD HAS TRADITIONALLY UPHELD THE POSITION THAT NAVIGATION RULES AND REGULATIONS ARE ESTABLISHED AS A FRAMEWORK WITHIN WHICH NAVIGATION SAFETY CAN BE MAINTAINED. SIMILARLY THE COAST GUARD RELIES UPON THE JUDGMENT AND PROFESSIONALISM OF PRUDENT MARINERS, SINCE NO DEGREE OF REGULATION CAN BE A SUBSTITUTE FOR A MARINER'S EXPERIENCE, GOOD JUDGMENT, AND PROFESSIONALISM.

A PART OF THE PROFESSIONAL MARINER'S RESPONSIBILITY INCLUDES KEEPING ABREAST OF NAVIGATION SAFETY CONCERNS THROUGH THE NOTICE TO MARINERS ADVISORIES AND MAINTAINING, UPDATING, AND REFERENCING THE APPLICABLE NOAA CHARTS FOR THEIR AREA OF OPERATION. THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION PUBLISHES A COMPLETE SERIES OF U.S. COASTAL CHARTS AS NAVIGATION AIDS TO THE MARINER. IN ADDITION TO PROVIDING INFORMATION CONCERNING WATER DEPTH, AIDS TO NAVIGATION, OBSTRUCTIONS, FIXED STRUCTURES SUCH AS OFFSHORE OIL/GAS PLATFORMS, THESE CHARTS ALSO HAVE PRECAUTIONARY NOTATIONS ON THEM CONCERNING SUBMERGED PIPELINES AND CABLES. THESE NOTATIONS ADVISE MARINERS THAT ADDITIONAL UNCHARTED SUBMERGED OIL AND GAS PIPELINES AND SUBMERGED CABLES MAY EXIST WITHIN THE AREA OF THE PARTICULAR CHART AND THAT MARINERS SHOULD EXERCISE CAUTION WHEN ANCHORING, DRAGGING, OR TRAWLING. THE DEGREE OF DETAIL MARKED ON THESE NOAA CHARTS IS LARGELY DETERMINED BY THE SCALE, OR GEOGRAPHICAL LIMITS, REPRESENTED BY THE CHART.

THE BUSINESS OF SOME MARINERS, LIKE THE MENHADEN FISHING OPERATIONS OF THE F/V NORTHUMBERLAND, REQUIRE FISHING VESSELS TO OPERATE IN THE SHALLOW, MORE HAZARDOUS NEAR-SHORE ENVIRONMENT. IN THE INTERESTS OF NAVIGATION SAFETY, THIS HAS LED SOME TO SUGGEST THAT SHALLOW WATER FISHING OPERATIONS SHOULD BE RESTRICTED IN SOME WAY TO PROTECT THEM FROM SPECIFIC HAZARDS, SUCH AS SHALLOW WATER SUBMERGED PIPELINES. HOWEVER, OPERATIONAL RESTRICTIONS WOULD DIRECTLY IMPACT THE SHALLOW WATER FISHERMAN'S ABILITY TO STAY IN

BUSINESS. THEREFORE, THE COAST GUARD DOES NOT BELIEVE THAT RESTRICTING VESSEL OPERATIONS IS A VIABLE SOLUTION TO IMPROVING FISHING VESSEL SAFETY.

THOUGH NOT THE ISSUE OF THIS HEARING, FISHING VESSEL SAFETY IS A CONCERN TO THE COAST GUARD BECAUSE FISHING VESSELS AS A CLASS HAVE A HIGHER RATE OF MARINE CASUALTIES OVERALL, THAN DO OTHER TYPES OF VESSELS. CONGRESS HAS RECOGNIZED THIS CONCERN BY ENACTING THE COMMERCIAL FISHING INDUSTRY VESSEL SAFETY ACT OF 1988, MANDATING SAFETY REGULATIONS AND DIRECTING THE COAST GUARD TO PREPARE A LICENSING PLAN FOR THE OPERATION OF FISHING VESSELS. THE ACT ALSO REQUIRES A STUDY TO DETERMINE THE NEED FOR IMPROVED FISHING VESSEL SAFETY. THEREFORE, THE COAST GUARD WITH THE NATIONAL ACADEMY OF SCIENCES IS STUDYING THE OVERALL ISSUE OF FISHING VESSEL OPERATIONS AND SAFETY. THE RESULTS OF THAT STUDY WILL HELP TO DETERMINE WHETHER REGULATIONS COVERING FISHING VESSEL INSPECTION, MANNING, AND OPERATION ARE NEEDED.

WE BELIEVE THAT RESTRICTING THE AREA OF FISHING VESSEL OPERATIONS IS NOT THE ANSWER TO PREVENTING FUTURE CASUALTIES LIKE THE NORTHUMBERLAND. RATHER, THE ISSUE WOULD SEEM TO BE TO REDUCE THE HAZARDS OF SUBMERGED PIPELINES. THE COAST GUARD BELIEVES THAT THE RESPONSIBILITY FOR CONTINUED SAFETY OF PIPELINES FALLS TO THE AGENCIES RESPONSIBLE FOR PIPELINE PERMITTING AND SAFETY, AND ULTIMATELY TO THOSE RESPONSIBLE FOR THE PIPELINES. PERIODIC

SURVEYS OF SUBMERGED PIPELINES COULD IMPROVE NAVIGATION SAFETY BY IDENTIFYING SPECIFIC PIPELINE HAZARDS. THOUGH WE DEFER TO PIPELINE REGULATORY AGENCIES FOR EXPERTISE ON PIPELINE SURVEY TECHNIQUES, NEW TECHNOLOGIES SUCH AS SIDE SCAN SONAR, ROBOTIC UNDERWATER CAMERAS, AND OTHER ELECTRONIC MEANS MIGHT BE CONSIDERED FOR SURVEYING SUBMERGED PIPELINES. IN A RELATED AREA, THE COAST GUARD HAS EXPERIENCE WITH NEW TECHNIQUES FOR THE UNDERWATER SURVEYING AND NON-DESTRUCTIVE TESTING OF EXPOSED PIPELINES AND STRUCTURES RELATED TO MOBILE OFFSHORE DRILLING UNITS. THESE NEW TECHNOLOGIES, WHICH WERE NOT AVAILABLE WHEN THE EXISTING PIPELINE SAFETY REGULATIONS WERE INTRODUCED, MAY NOW OFFER ECONOMICAL AND BENEFICIAL MEANS OF PIPELINE SURVEYING. WE WOULD GLADLY SHARE OUR EXPERIENCE IN PIPELINE INSPECTION WITH OTHER STATE OR FEDERAL AGENCIES RESPONSIBLE FOR OVERSEEING PIPELINE SAFETY.

AS A FINAL COMMENT, IN THE WAKE OF THE EXXON VALDEZ INCIDENT AND PIPELINE CASUALTIES LIKE THAT INVOLVING THE NORTHUMBERLAND, THE COAST GUARD HAS RECOGNIZED THE NEED FOR IMPROVING ITS CONTINGENCY PLANNING. AS PART OF THIS EFFORT THE COAST GUARD HAS CONDUCTED A THOROUGH REVIEW OF ALL REGIONAL AND LOCAL CONTINGENCY PLANS. IN THE GULF OF MEXICO, WHICH ACCOUNTS FOR THE MAJORITY OF THE U.S. OFFSHORE OIL AND GAS EXPLORATION AND ASSOCIATED PIPELINES, THE

COAST GUARD HAS IDENTIFIED WHERE INFORMATION CONCERNING PIPELINE LOCATION AND OWNERSHIP IS AVAILABLE AND IS INCLUDING THIS INFORMATION IN OUR CONTINGENCY PLANS.

MR. CHAIRMAN, THIS CONCLUDES MY STATEMENT. I WILL BE GLAD TO ANSWER ANY QUESTIONS THAT YOU OR THE OTHER MEMBERS OF THE SUBCOMMITTEE MIGHT HAVE.