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In the mind of one individual close to the legislative process, this civil penalty approach as an oil spill liability and compensation scheme was, as originally conceived and introduced to the legislature, a good idea. However, after all of the modifications and compromises, the civil penalty scheme as enacted is considered to be 'wimped out,' with the maximum \$10 penalty said to be 'not close to a good deal for the environment.'⁴⁷ As was shown above, even this maximum amount, which is greatly reduced from the bill as originally introduced, will never be assessed against a spiller.

Contrary to this rather negative opinion, one assistant attorney general who presently works with the civil penalty law, but who was not involved in the formulation of the law or regulations, is in general very pleased with both the statute and the regulations.⁴⁸ This paper will now discuss how this scheme has worked in practice.

3.3 The Civil Penalty Scheme in Practice

First and foremost, it should be noted that to date all cases in which the State has asserted responsible party liability under AS 46.03.758 have settled out of court. In the opinion of one Alaska Assistant Attorney General good settlements are typically achieved.⁴⁹ Also, the fact that all cases brought under AS 46.03.758 have settled out of court is considered a validation that this civil penalty law works.

3.3.1 AS 46.03.758 in Relation to Other Natural Resource Damage Liability Laws; Proof of Financial Responsibility

As discussed in Chapter 2, Alaska's civil penalty statute is based on the assumption that all oil spills will cause natural resource damage. However, as a practical matter considerations such as the availability of adequate evidence, and the relationship between the time and expense that will be incurred in litigation and the amount that will potentially be recovered may dictate whether a case is pursued. Most particularly, when the responsible party has cleaned up most of the oil or has made a good faith effort to clean it up, especially if the State has not spent much money in responding to the incident, the Alaska Attorney General may elect not to initiate a lawsuit at all.⁵⁰

When litigation is deemed appropriate, the State will file a complaint alleging spiller liability under not only AS 46.03.758, but also under other potentially applicable state and federal statutes, and in some cases under common law theories of liability as well. Or, as stated by Paul O'Brien of the ADEC, the State will "throw the book at them," or "shoot for the moon."⁵¹ Three examples will serve to illustrate.

47. Personal interview with Randy Bayless, former ADEC Director, Valdez Office, in Juneau Alaska, April 18, 1988.

48. Personal interview with Alaska Assistant Attorney General Doug Merz, Juneau Alaska, April 20, 1988.

49. *Id.*

50. *Id.*

51. Personal interview with Paul O'Brien, Oil Spill Response Coordinator for ADEC, Juneau Alaska, April 15, 1988.

First of all, in June, 1979 a rupture in the trans-Alaska oil pipeline released over 210,000 gallons of crude oil. A portion of the oil entered both the Atigun and Sagavanirktok rivers. The complaint prepared by the State alleged that the defendant (Alyeska Pipeline Service Co., Inc.) was liable for the civil penalties imposed by AS 46.03.758, and strictly liable for natural resource damages under the federal Trans-Alaska Pipeline Authorization Act (43 USC section 1653).⁵²

Secondly, on December 25, 1979 the Panamanian ore carrier M/V Lee Wang Zin capsized in Canadian waters. It then drifted into Alaskan waters spilling an estimated 100,000 gallons of bunker fuel into a 'critical' marine environment. In court documents filed by the State it was alleged that the defendants were liable for cleanup and restoration costs under AS 46.03.760(e) and AS 46.03.780; the civil penalties imposed by AS 46.03.758 multiplied by five based on allegations of gross negligence or an intentional act, and inadequate cleanup efforts; liquidated damages under AS 46.03.760(a); strictly liable for the full amount of actual damages to the state including cleanup, restoration and administrative costs, under AS 46.03.822; and damages under the common law theories of negligence, trespass, unjust enrichment, and public nuisance.⁵³

Finally, on January 21, 1984, the Greek tanker M/V Capben ran aground in Cook Inlet. Over 180,000 gallons of its cargo of jet A aviation fuel was released. The complaint filed by the State of Alaska asserted that the defendants were liable for liquidated damages under AS 46.03.760(a); strictly liable for natural resource damages under AS 46.03.822; liable for the civil penalties imposed by AS 46.03.758; and liable for environmental restoration under AS 46.03.780.⁵⁴

AS 46.03.758(f) does indicate that a person liable for the civil penalties imposed by this statute is not also liable for the liquidated damages penalties imposed by AS 46.03.760(a).⁵⁵ Otherwise, none of the above cited state or federal statutes or common law theories of liability preclude recovery of both the civil penalties imposed by AS 46.03.758 for the loss resulting from damages which are unquantifiable and unidentifiable, and an amount under one of the other statutes or common law theories for those actual natural resource damages which are quantifiable and identifiable. However, according to Alaska Assistant Attorney General Doug Mertz, it is

52. Unsigned complaint in State of Alaska v. Alyeska Pipeline Service Co., Inc., Superior Court for the State of Alaska, Fourth Judicial District, by Doug Mertz, Assistant Attorney General for the State of Alaska, November, 1979, as contained in the archived Alaska Attorney General's file on this case.

53. Claims of the State of Alaska in The Matter of The Complaint of Lee Wang Zin Navigation Co., S.A. and Kai Yeh Navigation Co., LTD. for Exemption from or Limitation of Liability, in the United States District Court for the District of Alaska at Anchorage, No. A-80-199-Cv, August 29, 1980, by G. Thomas Koster, Assistant Attorney General for the State of Alaska.

54. Complaint filed in State of Alaska v. Transocean Del Ema Navigation, S.A., et. al., in the Superior Court for the State of Alaska, Third Judicial District, No. M-961, January 31, 1984, by Madeleine R. Levy, Assistant Attorney General for the State of Alaska. Please see Chapter 1 of this paper for a discussion of the Alaska statutes cited in this paragraph.

55. According to Alaska Assistant Attorney General Doug Mertz, the State will commonly allege liability under both in its complaint. A decision as to which statute recovery will be sought under is made once adequate information is available. Telephone communication with Doug Mertz, July, 1983.

unlikely that a court would allow recovery of both. In Mertz opinion it is likely that a court would interpret reimbursement under both this civil penalty statute and one of the other statutes or common law theories as a double recovery for at least some of the damage.⁵⁶

Mertz' opinion on this double recovery issue is supported by an agreement which was struck early in the life of this law between the Alaska Attorney General and those who insure against oil spill liability. Specifically, when AS 46.03.758 was passed in 1977, those with pollution insurance coverage assumed that their policies covered liability for the civil penalties that this statute imposed. While pollution insurance policies apparently do not normally cover civil penalties of this nature, insurers did not question the adequacy of the pollution insurance policies until the early 1980s when suits began to be filed under AS 46.03.758. At that time insurers stated that the civil penalties were in fact not covered by existing policies. Negotiations ensued, and the State of Alaska was able to convince the insurers that the civil penalties are in some measure related to actual damages. The State then indicated that to the extent the civil penalties compensate for actual damages, recovery for those same damages would not also be sought under one of the other applicable statutes or common law theories.⁵⁷

This agreement blurs the distinction between the intent of this civil penalty statute and other oil spill liability laws. AS 46.03.758 is intended to compensate only for the loss that the public suffers as a result of unidentifiable and unquantifiable damage.⁵⁸ 'Actual damages' are compensable under the other applicable oil pollution liability laws. This agreement means that actual damages, in addition to the loss resulting from unidentifiable and unquantifiable damages, may in fact be compensated for by the civil penalties imposed by AS 46.03.758. Under it, if actual damages are determined to be worth less than the civil penalty imposed the State would not be

56. See *Supra* note 48.

57. Id. Also, telephone communication with Doug Mertz, July, 1988. During their negotiations, another agreement was also struck between the State of Alaska and the pollution insurers. Section (e) of AS 46.04.040 states in part that "(e) an action brought under AS 46.03.758, 46.03.760(a) and (e), or 46.03.822 may be brought in a state court directly against the insurer or another person providing evidence of financial responsibility." Insurers expressed concern that because of the way AS 46.03.758 is written, if the state pursued a claim against the insurer in an oil spill incident, the insurer might not be allowed all of the defenses in the statutes which are available to their policy insureds. The Alaska Attorney General resolved this concern by issuing an opinion clarifying that in fact all defenses available to insurers would also be available to the insureds if the state sued the insurer for the civil penalties in an oil spill incident. See *Supra* note 48.

58. It could be argued that the State could, consistent with this agreement, still pursue recovery of both the full civil penalty imposed by AS 46.03.758 and an amount under one of the other applicable laws for quantifiable and identifiable damages. Specifically, this agreement indicates that to the extent the civil penalties compensate for 'actual damages,' compensation for those same damages would not be sought under any other applicable liability law. The unidentifiable and unquantifiable damages referred to in AS 46.03.758 may indeed be 'actual' and as such compensation for them would not be sought under any other liability law. As such, the State could pursue recovery of compensation for all 'actual' identifiable and quantifiable damages under the other applicable liability laws. However, to date the State has not actively pursued recovery of both.

prevented from recovering the entire assessed penalty.⁵⁹ In this case the State would still be able to collect some compensation for the harm which is presumed to exist as a result of unidentifiable and unquantifiable damages. Conversely, if the value of actual damages is determined to exceed the amount of the assessed penalty, the State would be limited to collecting only the total actual damage amount either under the civil penalty statute and one of the other applicable laws, or simply under one of the other applicable laws alone. Since all cases have settled out of court, it is unclear whether in a case like this a court might allow at least some amount in civil penalties for the harm which is presumed to exist as a result of unidentifiable and unquantifiable damages.

While this use of the civil penalty statute is at odds with its intent, it does avoid the double recovery issue. In practice the State of Alaska will thus initially allege liability under all applicable state or federal statutes or common law theories of liability. The State will then impress upon the defendants that if the case does go to court, it will pursue the avenue which offers the maximum potential recovery, while avoiding a possible double counting of damages. However, as will become evident from the discussion in Section 3.3.7 below, in practice Alaska rarely performs thorough natural resource damage assessment studies in order to determine the full extent of actual damages as would be necessary to support a claim under the more traditional oil spill liability laws. This indicates that as a practical matter the State does rely heavily on the civil penalty statute as a means of recovering compensation for actual damages. Yet it is also evident that the State has been successful in recovering some substantial settlement amounts.⁶⁰ This in turn indicates that the civil penalty statute has in practice proven to be a valuable tool for the State in assuring that compensation for actual damages is achieved.

Since the spills in the cases where a suit is filed are typically quite large, at least some of the defendants are commonly large oil interests with substantial resources. According to O'Brien, these defendants will use all of their resources to refute to the extent possible the allegations made by the State, and will assert all available defenses to liability.⁶¹ According to Mertz, once a case is filed the parties will 'dance around' until a settlement is reached. The settlement is always in a lump sum amount. It is never broken down as constituting a particular amount in compensation or penalties. This way the defendants can call it what they want, and the State can call it what it wants, and everyone is satisfied.⁶²

59. The mitigation clause may weaken the State's chances of actually collecting the entire assessed penalty. See Section 3.3.3 below.

60. See Section 3.3.7 below.

61. See *Supra* note 51.

62. See *Supra* note 48. It should be noted that the discussion in this section regarding recovery under AS 46.03.758 and/or the other applicable statutes or common law theories pertains only to recovery for natural resource or environmental harm. Some of these statutes and common law theories also impose liability for cleanup and/or administrative costs incurred by the state in responding to a spill incident. These expenses would thus be recoverable in addition to the amount recovered for natural resource or environmental harm. Since all cases have settled out of court in a lump sum amount, it is unclear whether restoration costs would be

Those potentially subject to the civil penalty statute are not required to provide proof of financial responsibility to the \$100 million ceiling imposed by this statute. Rather, AS 46.04.040, Proof of Financial Responsibility, sets forth the amounts of money that oil terminal facilities, offshore exploration production facilities, oil barges and tank vessels must have ready access to in order to operate within the state for the purposes of a loss compensable under AS 46.03.760(e), 46.03.822, and an assessment under AS 46.03.758 or 46.03.760(a).⁶³

3.3.2 Ability to Determine the Amount Spilled

Although the amount of the civil penalty to be imposed is relatively easy to establish in comparison to determining the full extent of actual damages, calculating it is not nearly as straight forward as one would imagine. The most significant problem lies in the ability to determine the amount of oil spilled. Establishing this is commonly a major point of contention between the State and defendants.

Take, for example, a tanker carrying oil as cargo. The first potential problem that arises is how well the quantity of cargo was gauged when the vessel was loaded. In some cases, the quantity of oil loaded will be quite accurately measured. However, in other cases this may not be so. For example, when an oil company is transporting its own oil from the production site to the refinery precise gauging is not necessary and thus may not be done.⁶⁴

Secondly, even assuming that there is an accurate record of the amount of oil onboard the vessel when loaded, the ability to determine the amount remaining after a spill will depend on the availability of gauging devices, the accuracy of the gauging method used, and the capability of the person performing it. The primary goal after a spill is to get the oil out of the damaged vessel and into secure tanks. As such, precise measurement of the quantity of oil being transferred may not be a priority. If the oil is transferred into metered tanks, accurate measurements of the remaining

considered a separate recoverable item, or whether they would be considered to be included in an amount recovered under the civil penalty statute or an amount recovered for actual damages under one of the other statutes or common law theories.

63. See Chapter 1 of this paper for a discussion of the Alaska statutes cited in this paragraph. Proof of financial responsibility is set forth in AS 46.04.040 as follows:

- (a). Oil terminal facility: Proof of financial responsibility need not exceed \$50,000,000, but must not be less than \$10 per incident for each barrel of storage capacity at the facility, or \$1,000,000, whichever is greater.
- (b). Offshore exploration or production facility: Not less than \$35,000,000 per incident.
- (c). To be allowed to transfer oil to or from a tank vessel, or to or from an oil barge, proof of financial responsibility is as follows:
 - (1). for a tank vessel or oil barge transporting trans-Alaska pipeline oil, the amount required under the federal Trans-Alaska Pipeline Authorization Act (43 USC 1653(e)(3)) (sec. 304(e)(3));
 - (2). for any other oil barge, the amount required by section 311(p)(1) of the Clean Water Act (CWA), or \$1,000,000, whichever is greater;
 - (3). for any other tank vessel, the amount required by section 311(p)(1) of the CWA, or \$20,000,000, whichever is greater.

64. Unless otherwise stated, the problems encountered in establishing the amount of oil discharged in an oil spill incident as discussed in this section were provided by Alaska Assistant Attorney General Madeline Levy during a telephone interview on August 12, 1988.

oil may not be a problem. Conversely, when transferred into unmetered tanks accurate measurements may be impossible. Further, some gauging methods are intended to be used when the vessel is stable. These methods are less reliable when the vessel is rocking, listing, etc.

Temperature is another important factor. First of all, changes in temperature may cause oil expansion, contraction or evaporation thereby affecting the volume of oil present at any given time. Secondly, temperature may affect the accuracy or even the ability to use some gauging techniques.⁶⁵

Accurate calculations of the total amount of oil spilled may also be hindered when, for example, a portion of the oil remaining in a damaged tank has been removed and a further spill of the oil still in the damaged tank occurs. A second spill of this type occurred in the M/V Cenheus case. Accurate information as to the amount of oil present in the tank prior to this second spill was not available. Estimates of the quantity discharged thus ranged from 5,300 gallons to 21,000 gallons.⁶⁶

When a vessel sinks during or following a spill, an accurate calculation of the amount of oil still onboard versus the amount actually discharged into the aquatic environment may never be established. In the case of the Lee Wang Zin sinking, court papers filed by the State of Alaska asserted that at the time the vessel left British Columbia, Canada, she carried 1,100 tons (316,340 gallons) of bunker oil and 67 tons (19,698 gallons) of diesel oil. However, the amount of oil which actually seeped from the tanks was 'undetermined'.⁶⁷ Other available records estimate the amount discharged at around 100,000 gallons (bunker oil).⁶⁸

Determining the amount of oil discharged in the event of a pipeline spill may also present many problems. If the pipeline is being closely monitored and the discharge is detected immediately, a close approximation of the amount spilled may be possible. Conversely, if the pipeline is not closely or accurately monitored, the difficulties one would encounter in attempting to determine the amount spilled are rather obvious. Further, even if a pipeline is being monitored, only a portion of the oil flowing through it may actually escape. Thus again, especially if the spill is not detected for some time, determining the amount released may be quite a problem. Take for example the June 1979 Atigun Pass spill. In that case a portion of the oil flowing through the trans-Alaska pipeline escaped through a 5 inch Z-shaped crack. A Department of Interior report on the incident states

65. A report entitled M/V Cenheus Major Oil Spill, as contained in the ADEC's archived file on this spill indicates that cold temperatures made the use of "water indicating paste and Bio Marine Flammable Gas/oxygen meter" unreliable. Another gauging technique, however, was successfully used (p. 14). Yet even this technique only narrowed down the amount spilled to between 100,000 and 200,000 gallons (p. 4).

66. *Id.* M/V Cenheus Major Oil Spill report at p. 8.

67. See *Supra* note 54 at p. 1.

68. See the Alaska Attorney General's archived file on this case.

that although the date and time that the discharge began is unknown, it is believed to have begun 2-4 days before being detected.⁶⁹ Regarding the amount spilled, the report states

(it) is open to speculation. There are too many variables to come up with a hard and fast figure in measured volume. Since the collected volume has reached 2062 barrels of oil with some water (earlier it was thought to be 3126 barrels) recovered, the initial spill estimate of 1500 barrels seems low.⁷⁰

The amount spilled was ultimately estimated to be around 5062 barrels (212,604 gallons). Subtracting the amount cleaned up from this total (2062 barrels or 86,604 gallons), the defendant, Alyeska Pipeline Service Co., Inc., could potentially have been held liable for the civil penalty assessed on the remaining 169,000 gallons. In the complaint drafted by the State, the total amount spilled was alleged to be 'in excess of 210,000 gallons' and the amount recovered to be 'in excess of 125,000 gallons.'⁷¹ The exact amount of each would be 'proven at trial.' This case, as all other cases brought under AS 46.03.758, settled out of court. Thus, a more precise approximation of the amount spilled was never established.

Finally, in the event of an offshore oil production spill, one can expect many of the same problems in establishing the amount of oil spilled as in the case of an unmetered pipeline spill.

The intent of this section is not to provide an exhaustive list of all problems which may be encountered in determining the number of gallons discharged in an oil spill incident. Rather, the point to be illustrated is that this can in fact be a rather speculative undertaking. Even assuming that good gauging records are available, according to Alaska Assistant Attorney General Madeleine Levy gauging the amount of oil present at any time is itself not an exact science. Further, it should be made clear that in determining the amount of oil spilled it will be necessary for the State to rely at least to some extent, if not entirely, on the availability and/or reliability of the spillers records. For example, the spiller will most likely be the one with records indicating the quantity of oil loaded on a vessel. Also, if the State does not have a gauging consultant present when the remaining oil is transferred after a spill, it may again be necessary to rely on the spillers records. The Glacier Bay spill in Cook Inlet on July 2, 1987 provides an example.⁷² In that case, the vessel Glacier Bay was carrying 390,000 gallons of North Slope crude oil when it struck an object in Cook Inlet thereby causing the release of a portion of its cargo. The potentially responsible parties accomplished the transfer of the oil remaining in the tanks following the spill. The gauging records of the amount transferred, however, are apparently quite difficult to interpret. The ADEC has thus found it necessary to hire an outside expert to try to determine exactly what

69. Report on Milepost 166-167 Oil Spill, June 10, 1979, Alaska Pipeline Office, Department of Interior, Anchorage, Alaska, by Morris J. Turner, Authorized Officer, August 20, 1979.

70. *Id.* at p. i.

71. See *Supra* note 52.

72. Unless otherwise indicated, the information in this paragraph regarding the Glacier Bay spill was provided by Paul O'Brien during an interview in Juneau, Alaska on April 15, 1988.

these records say. The amount spilled is still an unresolved issue. For some time estimates ranged from as low as 50,000 gallons to as high as 150,000 gallons. The range has recently been reduced to between 50,000 and 85,000 gallons. The exact amount within this range is still a hotly disputed issue.⁷³

Two final comments are worth noting. First of all, in the opinion of Randy Bayliss, former Director of the Valdez ADEC office, if you can get within 50% of the actual amount spilled, you are doing well.⁷⁴ Secondly, Paul O'Brien of the ADEC concedes that gauging the amount of oil spilled may not make recovery for environmental harm any easier than a damage assessment. However, he also stresses that even if it is difficult to determine the amount spilled it doesn't mean that the law is bad. You would still have problems if damage assessments were the standard.⁷⁵

3.3.3 Spiller Defense To Liability: The Mitigation Clause

In the opinion of Alaska Assistant Attorney General Doug Mertz, the mitigation clause is potentially the biggest weakness in AS 46.03.758 from the State's perspective.⁷⁶ In turn, Mertz states that from the defendant's perspective this provision offers the best defense against liability for the civil penalties.⁷⁷

One will recall from the discussion in Section 2.6 above that this provision allows the court to reduce or totally eliminate the assessed penalty if it is demonstrated beyond a preponderance of the evidence that mitigating circumstances relating to the effects of the discharge would make imposition of the full penalty inappropriate.⁷⁸ According to Mertz, this provision has been interpreted by defendants to mean that if the assessed penalty is shown to be excessive in relation to the environmental effects of a spill, the burden would then be shifted to the State to prove that the actual damages warrant imposition of the entire penalty. The discussion in Chapter 2 above makes it clear that the civil penalty statute does not by its legislative history or statutory language contemplate the need to assess actual damages. Yet in Mertz opinion if a court accepted the defendants interpretation of the mitigation clause, the whole question of actual damages could be reopened.

It should be made clear that under this interpretation the initial burden would be on the defendant to prove a special case. However, discussions with members of the ADEC and the Alaska Attorney General's Office reveal that the State of Alaska is certainly not anxious to incur the

73. Telephone interview with Alaska Assistant Attorney General Michelle Browne, Anchorage Alaska, on August 30, 1988.

74. Personal interview with Randy Bayliss, former Director of the ADEC Valdez Alaska office, in Juneau Alaska of April 18, 1988.

75. See *Supra* note 72, personal interview with Paul O'Brien.

76. Personal interview with Alaska Assistant Attorney General Doug Mertz in Juneau Alaska on April 20, 1988. This opinion was also voiced by Assistant Attorney General Michelle Browne. Specifically, she contends that this clause undercuts the purpose of the civil penalty law. Telephone interview with Ms. Browne, August 30, 1988.

77. *Id.* Mertz interview.

78. Alaska Statute 46.03.758(g). Emphasis added.

time and expense necessary to perform a full scale natural resource damage assessment.⁷⁹ Rather, they prefer to settle the matter out of court for some amount less than the assessed penalty. Thus, it is evident that the mitigation clause as interpreted in practice has become a useful tool for defendants in settling these cases.

Yet referring back again to the discussion of this clause in Section 2.6 above, it is apparent that the interpretation that this provision has received in practice does not coincide with the intent as set forth by Attorney General Av Gross when the bill was under consideration in the legislature. In fact, one will recall that Mr. Gross explicitly stated that the 'unusual circumstances (later changed to mitigating circumstances) relating to the effects' of a discharge as contemplated by this provision were not intended to relate to damages at all. Instead, 'mitigating circumstances relating to the effects' of the discharge were intended to relate to unusual events or deviations from the normal circumstances surrounding a spill. For example, the penalty could be reduced if a fire burned off the oil, or if a strong wind or tide immediately transported the entire spill from a more sensitive to a less sensitive environment. As stated by Mr. Gross 'the provision does not contemplate that the courts will again become mired in a 'battle of experts' over the effects of oil pollution. It merely recognizes that, in certain rare instances, peculiar circumstances surrounding the discharge may justify a lower assessment.'⁸⁰

Given the wording of the mitigation clause, the interpretation it has received in practice is not surprising. However, based on an examination of the available historical records it is clear that this interpretation is at odds with the legislative intent. Since all cases to date in which the state has asserted spiller liability under AS 46.03.758 have settled out of court, this provision has not yet received an official court interpretation. But, according to Alaska Assistant Attorney General Michelle Browne, one judge relied heavily on this clause in assisting the parties in settlement negotiations in one case.⁸¹

3.3.4 Spiller Defense to Liability: The LLA

One will recall from Section 2.3.2 above that the Limitation of Liability Act (hereinafter LLA) allows a vessel owner or bareboat charterer to petition to limit his liability for the damages resulting from a maritime casualty to the value of the vessel and the freight on board after the incident.⁸² In the case of the capsizing and ultimate sinking of the M/V Lee Wang Zin (LWZ), the LWZ Navigation Co., S. A. and Kee Yeh Maritime Co., Ltd, both alleged to be owners of the LWZ within the meaning

79. Personal impression from interviews with Paul O'Brien, see Supra note 72; and Doug Mertz, see Supra note 76.

80. Gross, Avram M., Correspondence from Alaska Attorney General Av Gross to Alaska Governor Jay S. Hammond, June 10, 1977, from the Attorney General's Bill Review File on HB 137, 1977. Emphasis added.

81. See Supra note 76, interview with Ms. Browne. Ms. Browne was not involved in the case mentioned and did not identify the case name.

82. See Chapter 2, note 49.

of the LLA, sought exoneration from or a limitation of their liability pursuant to this act.⁸³ Since the LWZ sank, the value of the vessel was stated to be 0 dollars. The pending freight on board was alleged to be worth \$46,339.92. In keeping with the LLA these petitioners thus urged the court to decree that they were not liable for any damages, claims, or injuries consequent to the fatal voyage of the LWZ. In the alternative, they argued that if any liability were found to exist, it should be limited to \$46,339.92, their interest in the vessel and pending freight at the time and place that the voyage terminated.

In response to this petition, the United States filed a claim asserting that the costs incurred by the U. S. in removing the oil from the navigable waters of the U. S. did not fall within the purview of the LLA.⁸⁴ Rather, the U. S. urged that the Clean Water Act (CWA, 33 USC 1321(f)) was the controlling statute as to liability for cleanup costs. Under this act the LWZ Navigation Co., S. A. and Kee Yeh Maritime Co., LTD would be held liable for the cleanup costs incurred by the U. S. in the amount of \$2,238,012.08.⁸⁵ The Court held that indeed the CWA was controlling as to liability for cleanup costs.⁸⁶ As such, the U. S. would be able to seek recovery of its costs under this act.

The State of Alaska also filed a claim asserting in part that petitioners LWZ Navigation Co., S. A. and Kee Yeh Maritime Co., LTD. were liable for expenses incurred by the State in responding to this spill incident, as well as the civil penalties imposed by AS 46.03.758.⁸⁷ A couple of comments regarding the relationship between Alaska's claim and the LLA are worth noting. First of all, as discussed in Section 2.3.2 above, the sponsors of HB 137 argued that one of the reasons the vicarious liability provision was needed in the new law was that litigation against the owner might be fruitless in the case of a tanker grounding or sinking where the owner petitioned to limit his liability under the LLA. One will recall that the vicarious liability provision as it relates to an oil

83. See "Complaint for Exoneration from or Limitation of Liability," filed in The Matter of The Complaint of Lee Wang Zin Navigation Co., S. A. and Kee Yeh Maritime Co., LTD. for Exoneration from or Limitation of Liability, U. S. District Court for the District of Alaska at Anchorage, No. A-80-199, June 25, 1980, by Michael H. Woodell, Bradbury, Biles & Riordan, Inc., on behalf of plaintiffs. The other information in this paragraph regarding the claim for exoneration from or limitation of liability was also obtained from this document.

84. See "Petition of the United States of America" filed in The Matter of the LWZ Navigation Co., S. A. and Kee Yeh Maritime Co., LTD for Exoneration from or Limitation of Liability, U. S. District Court of Alaska, No. A-80-199-Ch, August 26, 1980, by Warren A. Schneider, U. S. Department of Justice.

85. *Id.* The owners of the LWZ did not accept cleanup responsibility of the oil spilled in this case. Thus, the U. S. in conjunction with the State of Alaska sought responsibility for this activity. "The Wreck of the Lee Wang Zin," ADEC publication, Alaska Environment, Vol. 4, No. 1, March-May 1980, at p. 1.

86. See "Order and Opinion" entered in The Matter of the Complaint of the LWZ Navigation Co., S. A. and Kee Yeh Maritime Co., LTD for Exoneration from or Limitation of Liability, U. S. District Court for the District of Alaska, No. A-80-199-Ch, February 4, 1981, by Judge James M. Fitzgerald.

87. See "Answer of the State of Alaska to the Complaint for Exoneration from or Limitation of Liability" filed in The Matter of the Complaint of LWZ Navigation Co., S. A. and Kee Yeh Maritime Co., LTD for Exoneration from or Limitation of Liability, U. S. District Court for the District of Alaska at Anchorage, No. A-80-199-Ch, August 29, 1980, by Alaska Assistant Attorney General G. Thomas Kosner.

spill from a vessel holds the vessel owner, the vessel operator, and the owner of the oil carried as cargo jointly and severally liable for the civil penalties imposed by this statute.⁸⁸

As it relates to the LWZ, it would appear that this vicarious liability provision was of little use to the State of Alaska. The oil discharged was not oil carried as cargo, rather it was the vessel's fuel. Available records indicate that the State of Alaska accepted, or at least did not strongly contest, that the LWZ Navigation Co., S. A. and Kae Yeh Maritime Co., LTD. were both owners and operators of the LWZ.⁸⁹ Thus, if these two petitioners were able to limit their liability under the LLA, there apparently would have been no other potentially responsible party from which to seek recovery of the civil penalties.

However, and the second point to be made, AS 46.03.758 imposes liability for civil penalties, while the LLA applies to relief from liability for damages. No court ruling has been rendered as to the applicability of the LLA to this civil penalty statute. Thus it is possible that Alaska could have recovered the penalties imposed by AS 46.03.758 from the petitioners even if the LLA was determined to apply. Whether as a result of the court ruling in favor of the U. S. regarding liability for cleanup costs, the possibility that the State of Alaska could have recovered the civil penalties imposed by AS 46.03.758 even if the LLA was found to apply, and/or because of the expenses which would have been incurred in allowing the case to go to court, the petitioners eventually agreed to settle both the U. S. and the State of Alaska's claims out of court. In turn, the possibility that the LLA would have applied as to liability for damages most likely had an influence on the U. S. and Alaska's decisions to settle these claims as well.⁹⁰ Once these settlements were reached, the Court entered a judgment (without reference to the LLA) exonerating and discharging LWZ Navigation Co., S. A. and Kae Yeh Maritime Co., LTD. from any losses, damages or injuries arising out of the incident, except for claims made by representatives of crew members on board when the vessel sank.⁹¹

3.3.5 Incentive to Clean Up Spilled Oil: Effectiveness of the Penalty Deduction For Oil Removed

One will recall from the discussion in Section 2.5 above that the provision allowing the court to reduce the assessed penalty based on the number of gallons cleaned up was added to AS 46.03.758 in an effort to provide spillers with an added incentive to clean up as much oil as

88. AS 46.03.758(e)(7).

89. See Supra note 87 and Alaska Department of Law letter office Memo from Assistant Attorney General G. Thomas Koester to Assistant Attorney Generals Jonathan Tillingham, Doug Mertz and Lois Levy, September 2, 1980, as contained in the Alaska Attorney General's archived file on this case.

90. For more information regarding the settlement of these claims, see "Judgment of Exoneration" signed by Judge James Fitzgerald on April 12, 1982, and the "Stipulation for Dismissal" signed to by all parties in April 1982, in The Matter of LWZ Navigation Co., S. A. and Kae Yeh Maritime Co., LTD. for Exoneration from or Limitation of Liability, U. S. District Court for the District of Alaska, No. A-80-199-Civ.

91. Id. Judgment of Exoneration.

possible. By both Alaska state and federal statutes, a potentially responsible party (PRP) is required to initiate cleanup efforts.⁹² Only if such cleanup efforts are determined to be inadequate, or if the person causing the spill cannot be found, may the state or federal government take over the cleanup response.⁹³

It is very difficult if not impossible to determine the effectiveness of this provision as an 'incentive to clean up spilled oil.' Many other factors may also influence a PRP's decision on whether to attempt cleanup. For example, aside from the potential reduction in the penalty, factors such as public image, concern for the environment, liability for cleanup costs incurred by the state or federal government, liability for actual environmental damage and private claims and/or the monetary value of recovered oil may also provide a PRP with an incentive to clean up as much oil as possible. Conversely, a potential reduction in the penalty may not provide a sufficient added incentive to clean up spilled oil in cases where a PRP does not consider himself liable for the spill and/or cleanup costs, if adequate manpower and/or equipment are not readily available, if weather conditions make cleanup either excessively expensive or impossible, and/or if it is believed that the oil will disperse or evaporate thereby causing little if any identifiable physical damage. Ultimately, the decision by a PRP on whether to attempt cleanup or not will result from a weighing of some or all of these factors. The four cases examined in this respect are perhaps illustrative.

In the June, 1979 Atigun Pass case, Alyeska Pipeline Service Co. accepted cleanup responsibility and approximately 40% of the spilled oil was ultimately recovered.⁹⁴ While a potential reduction in the penalty may have had some influence on the decision to clean up the oil, it is likely that public image was considered since Alyeska has a long term interest in the State of Alaska. Also, the fact that a portion of the oil was reusable was most likely an important factor as well.⁹⁵

In the M/V Cepheus case, the vessel operator accepted responsibility for cleanup. However, only a very small portion was actually recovered. Approximately 40% either evaporated, was dispersed into the water, or was absorbed in or entrained in or under the ice and was therefore inaccessible. For that portion which was visible, cleanup was deemed impossible due to ice clogged waters and strong currents.⁹⁶

92. AS 46.06.020, Removal of Oil Discharges, and 33 USC 311(c)(1) (the Clean Water Act).

93. *Id.*

94. The Complaint drafted by the state in this case indicates that around 210,000 gallons were discharged, and approximately 125,000 gallons were not recovered. The estimated 85,000 gallons removed is about 40% of the total spilled.

95. The federal On Scene Coordinator's report of this incident indicates that 2257 barrels (94,794 gallons) of the spilled oil was either stored or respected into the pipelines. Report on Milepost 166-167 Oil Spill, June 10, 1979. Alaska Pipeline Office, Department of Interior, Anchorage Alaska, August 20, 1979 at p. 9.

96. "Ice, Tides Hamper Recovery of Spilled Oil," by Pat O'Brien, Anchorage Times, January 27, 1984.

In the M/V Lee Wang Zin case the vessel owners denied that they were responsible for cleanup based on the LLA. The U. S. Coast Guard thus took responsibility for the cleanup effort, incurring expenses of over \$2 million.⁹⁷

Finally, in the recent Glacier Bay spill in Cook Inlet, Alaska, three PRPs, the vessel owner, the oil owner at the time the vessel was loaded, and the oil purchaser (it was unclear exactly who owned the oil at the time of the spill), separately and sequentially attempted to clean up the spill.⁹⁸ However, the overall response was soon determined to be inadequate because the PRPs did not have access to necessary equipment. The U. S. Coast Guard thus took over.⁹⁹

Again, since the potential reduction in the penalty is only one of many factors which may influence a decision on whether to attempt cleanup, a conclusive statement as to the success of the 'incentive to clean up oil' provision in AS 46.03.758 would be speculative at best. Yet focusing exclusively on the relationship between the decision of whether to clean up spilled oil and the penalty imposed by AS 46.03.758 as distinct from these other considerations, several observations are worth noting.

First of all, from a strictly economic perspective, the incentive to clean up the oil will cease at the point where the cost of cleaning up the next gallon exceeds the cost of the penalty to be assessed on that and all remaining gallons. According to Randy Bayliss, former Director of the Valdez ADEC office, the cost of cleaning up spilled oil may be as high as \$1,000 per gallon.¹⁰⁰ As discussed in Section 3.1 above, the highest per gallon penalty which will be assessed under AS 46.03.758 is 76% of the base penalty. For spills into freshwater and marine environments the highest possible penalties will be \$7.60/gallon and \$1.90/gallon respectively (these amounts could be multiplied by five if the spill was caused by gross negligence or an intentional act, or if reasonable clean up efforts were not undertaken). Thus, when the cost of cleanup per gallon exceeds these per gallon penalty amounts, the economic incentive to continue cleanup will no longer be present. From this strictly economic perspective, the effectiveness of this 'incentive to clean up spilled oil' provision is questionable.

Secondly, in the opinion of Mr. Bayliss it is to the spiller's advantage to postpone cleanup as long as possible because if enough time elapses the oil will disperse and cleanup will be impossible.¹⁰¹ One can imagine a situation in which this tactic, in relation to the civil penalty statute, would make economic sense from the spiller's perspective. As discussed above, determining the amount of oil spilled can be a rather speculative undertaking. Allowing the oil to disperse rather than cleaning it up may in some cases be to the spiller's advantage with regard to

97. See *Supra* notes 84 and 85.

98. Personal interview with Paul O'Brien, ADEC, Juneau Alaska on April 15, 1988.

99. U. S. Coast Guard News Release, July 17, 1987, as contained in the U. S. Coast Guard file on this incident.

100. See *Supra* note 74.

101. *Id.*

determining the total amount spilled. In the Atigun Pass case, for example, it was only after 2062 barrels of oil were cleaned up that the initial total spill estimate of 1500 barrels was determined to be too low.¹⁰² Further, if it costs the spiller more per gallon to clean up the oil than the per gallon penalty imposed by AS 46.03.758, it will make financial sense to dawdle in cleaning up the oil as long as possible thereby allowing the oil to disperse, rather than incurring both the expense of cleanup, and the civil penalty imposed by AS 46.03.758.

Finally, according to Bayliss, the market value of oil is around \$1/gallon, the cost of cleaning up the oil may be as high as \$1,000/gallon, and the penalty imposed by AS 46.03.758 may be as low as \$0.25.¹⁰³ Based on these amounts, and the premise that it is to the spillers advantage to delay cleanup as long as possible, Bayliss suggests that perhaps the best oil spill liability system would be based not on the number of gallons spilled, but on cleanup costs. In his opinion, the spiller should not be allowed to do cleanup at all. Instead, a contractor should be hired by the state to insure that adequate manpower and equipment are always available, and that cleanup will be done in a timely manner and to an acceptable extent. The spiller would then be held liable for the contractor's costs.

Alaska Assistant Attorney General Doug Mertz does not share Bayliss' view on this issue. Rather, Mertz holds that for some spills, for example those in remote areas, it could take the state up to three days to assess the situation and to get crews to the site.¹⁰⁴ Mertz feels that under the present system there is at least a chance that the spiller will clean up the spill immediately, since he would be threatened with an increased penalty (the whole fine multiplied by five) if he did not respond in this manner.

There is also a second shortcoming of Bayliss' proposal. That is, if an oil spill liability scheme was based on cleanup costs, no recovery would be made in a case such as the M/V Capharnaum where cleanup was impossible due to weather conditions, evaporation, etc. In a case such as this, even though the exact amount of the spill may not be established with certainty, at least some recovery as compensation for damages may be possible.

3.3.6 Impact of the 18,000 Gallon Exemption

According to one Alaska official, the 18,000 gallon exemption has in practice resulted in raising 'false issues' and as such has hindered the State's enforcement efforts.¹⁰⁵ Specifically, in borderline cases (or even not so borderline cases), spillers vigorously attempt to establish that the amount of oil discharged is less than 18,000 gallons in order to evade liability under this fixed civil penalty statute. Yet, this official contends that a 'small' spill into a critical marine environment can result in more environmental damage than a 'large' spill in an open area. Further, according to

102. See Supra note 93. Report, at p. 1.

103. The argument in this paragraph was offered by Mr. Bayliss during a personal interview. See Supra note 74.

104. The argument in this paragraph was offered by Mr. Mertz during a personal interview. See Supra note 48.

105. Telephone interview of Alaska Assistant Attorney General Michelle Brown, Anchorage Alaska, August 30, 1988.

Alaska Assistant Attorney General Doug Mertz, it is prohibitively expensive for the state to pursue recovery for the damage resulting from 'small' spills under the other applicable statutes, and thus they tend to slip through the system.¹⁰⁶

3.3.7 Alaska's Response to Oil Spill Incidents, and the Amount and Fate of Recovered Funds

To put the State of Alaska's response to spill incidents into context, a preliminary statement regarding the relationship between the response responsibilities of the spiller, the federal government, and the state government is in order.

First of all, as mentioned previously the party or parties responsible for an oil spill incident are required by both Alaska state and federal statute to clean up the oil.¹⁰⁷ Pursuant to section 311 of the Clean Water Act (CWA, 33 USC 1321), for spills into coastal and offshore waters, the U. S. Coast Guard is assigned the responsibility of approving and monitoring the spiller's cleanup efforts, as well as determining the extent of natural resource damage and what restoration or replacement of damaged or destroyed resources will be required of the spiller. For oil spills into inland waters and their tributaries, these responsibilities are similarly assigned to the federal Environmental Protection Agency (EPA). The response by these agencies is to be coordinated with the State, and when appropriate, some or all of these responsibilities may be delegated to the appropriate state agency or agencies. In the event that a spiller's response is determined to be inadequate, or if the spiller cannot be located, the appropriate federal agency then acquires full responsibility for the cleanup and restoration activities. Again, when appropriate some or all of these responsibilities may be delegated to the state.

Section 311(k) of the CWA sets up a fund to provide the Coast Guard and EPA ready access to funds in carrying out their oil spill response responsibilities. Recovery of money spent by these agencies may then be sought, up to various identified limits based on the type of facility or vessel from which the spill originated, from the PRPs. When a state incurs expenses covered by the 311(k) fund, it may then request reimbursement from the fund.

The State of Alaska in turn has a statute in place which authorizes the ADEC to take over cleanup and containment efforts if the spiller's response is determined to be inadequate.¹⁰⁸ If cleanup efforts are being performed by the Coast Guard or EPA, this statute explicitly states that the ADEC may not take over the response. However, if the federal response is considered inadequate, the ADEC may undertake supplemental cleanup or containment measures as appropriate. Recovery of all costs incurred by the State in responding to a spill incident would be sought from the spiller in a civil action.

106. Personal interview with Alaska Assistant Attorney General Doug Mertz, in Juneau Alaska, April 20, 1988.

107. See *Supra* note 92.

108. AS 46.04.020(c). The other references to this statute in this paragraph also refer to this section of the statute.

The nature of Alaska's response to a spill incident will, of course, depend to some extent on the circumstances surrounding the particular spill in question. However, based primarily on financial considerations Alaska will generally rely heavily on the federal response to an oil spill in state waters. As stated by O'Brien, the ADEC will typically "ride the coar tails" of the Coast Guard or EPA depending on them to fund as far as possible the response to a spill.¹⁰⁹ Assuming this stance, Alaska's response will generally be limited to assisting the Coast Guard or EPA in monitoring cleanup activities, in performing damage assessments, in determining what restoration will be required of the spiller, and if necessary and appropriate, in actually cleaning up the spilled oil. If the federal response is found to be inadequate, the State may incur the expense of further cleanup or a more thorough assessment of damage. In addition, if not available from the spiller, or if not included in the federal response, the State may incur the cost of determining the amount of oil spilled and/or the aromatic content of refined oil or the API gravity of crude oil for the purposes of assessing the penalty under AS 46.03.758. Four examples will serve to illustrate the State's response in a variety of circumstances.

M/V Cepheus: Following the 1984 M/V Cepheus grounding in Cook Inlet, the vessel owner took responsibility for the cleanup response and the transfer of the oil from the damaged vessel to sound tanks.¹¹⁰ As mentioned earlier, very little oil was recovered due to oil evaporation and dispersion, and harsh weather conditions.¹¹¹ Thus, monitoring of cleanup activities was not necessary. The Coast Guard took responsibility for advising and monitoring the transfer of oil to sound tanks.¹¹² The Anchorage Fire Department stood by in case of fire, but the overall participation of state agencies in this activity was minimal. As part of the federal response, NOAA contracted for studies to assess evaporation and dispersion rates and the predicted fate of the spilled oil, and provided a spill trajectory analysis. Based on this information it was concluded that the environmental impact would be minimal.¹¹³ Thus, no full scale natural resources damage assessment was done and no monitoring of restoration was necessary. The ADEC did participate in overflights of Cook Inlet in an effort to locate pools of spilled oil. No significant pools were positively identified. The ADEC also chartered a helicopter and obtained samples of ice and sediment for fingerprinting¹¹⁴ purposes.

109. See *Supra* note 98.

110. See Draft memo of ADEC Commissioner Richard Neve to Office of the Governor, Chief of Staff John Shively, January 27, 1984, as contained in the ADEC archived file on this incident.

111. See *Supra* note 98.

112. Unless otherwise indicated, the information in this paragraph regarding the response to the M/V Cepheus spill comes from the Coast Guard News Release of the incident and the Coast Guard M/V Cepheus Major Oil Spill 21 Jan-7 Feb 1984 report, both contained in the ADEC archived file on this incident.

113. *Id.* See also Memo from Dave Kennedy, Scientific Support Coordinator, to Coast Guard On Scene Coordinator Captain Hansen, February 14, 1984, as contained in the ADEC archived file on this incident.

114. Fingerprinting entails a laboratory analysis of oil for the purpose of determining whether oil at various locations originated from the spill in question.

According to Alaska Assistant Attorney General Madeleine Levy, the aromatic content of the spilled oil was obtained from the spiller's records.¹¹⁵ Further, available records indicate that gauging the amount of oil present when the vessel was loaded was done by the cargo owner, and gauging the amount of oil remaining in the vessel's tanks following the grounding was done as part of the federal response. Thus, no additional expense was incurred by the State in this regard.

An exact figure as to the amount spent by Alaska in responding to this incident is not available. However, according to Levy, the amount was minimal, and the entire response was made by state agency employees as part of their normal duties.¹¹⁶

The complaint filed by Alaska alleged that over 180,000 gallons of jet A aviation fuel was discharged into Cook Inlet. This is a critical marine environment as defined in 18 AAC 75.5 with a base penalty of \$2.50. The aromatic content of the oil is not available. However, assuming it was around 15% as set forth in Table 4, and assuming that it was established in court that 180,000 gallons were actually discharged, the penalty under AS 46.03.758 would be determined by the following formula:

$$\frac{((15/45^2) + .25 + .15) * \$2.50 * 180,000}{3}$$

3

The total penalty would thus be \$110,000. This case ultimately settled out of court for approximately \$150,000.¹¹⁷ Based only on the amount of the penalty and the fact that actual damages were determined to be minimal, this is obviously a very good settlement. However, the complaint filed by Alaska in this case asserts that the defendants "failed to procure approval of an oil discharge contingency plan...as required by (statute)" and "failed to submit proof of financial responsibility...as required by (statute)."¹¹⁸ If found liable for these failures, each could have carried a civil penalty of "not less than \$500 nor more than \$100,000 for the initial violation plus not more than \$5,000 for each day thereafter upon which (the violation continues)."¹¹⁹ Plus, the defendants could have been found liable for the costs the State did incur in responding to this incident. These potential liabilities, in addition to liability for the civil penalties, surely had an impact on the settlement achieved in this case.

Alleged Fact: As mentioned earlier, in June 1979 over 210,000 gallons of crude oil escaped through a crack in the trans-Alaska pipeline. Alyeska Pipeline Service Co., Inc. took responsibility

115. Telephone interview of Alaska Assistant Attorney General Madeleine Levy, Anchorage Alaska, August 30, 1988.

116. *Id.*

117. Telephone interview of Alaska Assistant Attorney General Madeleine Levy, Anchorage Alaska, August 12, 1988.

118. Complaint filed by the State of Alaska in *State of Alaska v. Transocean Del Ego Navigation, S.A., et al.*, in the Superior Court for the State of Alaska, Third Judicial District, by Alaska Assistant Attorney General Madeleine Levy, January 31, 1984. Referring to liability under AS 46.03.760(a).

119. *Id.*

for and accomplished the cleanup and restoration response.¹²⁰ The EPA designated On Scene Coordinator (OSC) took primary responsibility for monitoring the adequacy of Alyeska's cleanup and restoration activities. The EPA, Bureau of Land Management, and the U. S. Fish and Wildlife Service took primary responsibility for the damage assessment activities. The ADEC and Alaska Department of Fish and Game assisted in both monitoring the cleanup response and in the damage assessment activities. Alyeska's cleanup effort was criticized for not being completed as quickly as it should have been. However, neither the federal OSC nor the State of Alaska deemed it necessary to take over the effort, and the end result was considered excellent.

The Atigun river was the water source most heavily impacted. The federally headed evaluation of the impact concluded that because of a lack of baseline data, the actual effects of the oil on aquatic species was unknown and probably would never be determined. It was generally agreed that the importance of this area as a fishery was limited. However, it was considered a very important transportation corridor for spawning fish. FWS biologists observed no fish where fish had previously been reported. This was interpreted to mean fish were avoiding impacted areas. Given the lack of adequate data no full scale natural resource damage assessment studies were done and no restocking of the area was attempted. The federal response also included analyses of water samples for aromatic content. These studies showed insignificant quantities of dissolved aromatic fractions remaining in the system.

Regarding plantlife impacted by the oil, the federal response, in coordination with the state, determined that removal of them could be expected to cause stream bank instability which would cause greater long-term damage. Alyeska was thus directed only to remove the free oil from the ground around the vegetated areas and to disturb the plants as little as possible.

The impact of the oil on mammals and waterfowl in the area was determined to be minimal. No restoration response was deemed necessary in this regard. Some reseedling of tundra in the area where the spill originated was requested by the federal OSC and subsequently carried out by Alyeska. Finally, according to Alaska Assistant Attorney General Doug Mertz, once cleanup was completed the State participated in a four year monitoring program of the area affected by the spill in order to make sure that natural rehabilitation of vegetation took place, and that the fish returned to the area.¹²¹

An OSC report indicates that the federal response included an effort to establish the amount of oil discharged.¹²² Thus, Alaska need not have incurred any extra expense in making this

120. Unless otherwise indicated, the information in this section regarding the response to the Atigun River spill was obtained from the Report on Milepost 166-167 Oil Spill June 10, 1979, by the Alaska Pipeline Office, Department of Interior, Anchorage Alaska, August 30, 1979. This report is contained in the ADEC archived file on this incident.

121. Personal interview with Alaska Assistant Attorney General Doug Mertz, Juneau Alaska, April 20, 1988.

122. See *Supra* note 120.

determination. Finally, the OSC report gives no indication that the federal response included an attempt to determine the API gravity of the crude spilled. It is unlikely that the State incurred a great deal of expense in finding this out. It is generally known that Alaska North Slope crude has an API gravity of around 26.4. The complaint drafted by the State estimates the API gravity was around 26.8.¹²³ It is likely that Alyeska had access to this information and provided it to the state. Yet since no information is available on this issue, it is possible that the State did incur the expense of determining this API gravity number.

No records are available as to the amount the State spent in responding to this incident. However, given that the cleanup and restoration response was accomplished by the responsible party and that the federal government took the primary oversight responsibility, it is likely that, similar to the M/V Capheus case, the amount was minimal, and consisted primarily of agency employee salaries.

As discussed earlier, the State estimated that the amount spilled, less the amount cleaned up, exceeded 125,000 gallons.¹²⁴ The waters affected were classified as critical freshwater environments. Assuming that all of the oil that was not cleaned up actually entered the water, and that it was established in court that 125,000 gallons were not recovered, the penalty would be determined as follows:

$$((26.8/30 * .75) + (30/26.8 * .5) + .5) * \$10 * 125,000$$

3

The total penalty would thus be \$813,764.37. This case ultimately settled for around \$350,000. According to Mertz, this settlement amount was significantly more than the cost incurred by the State in responding to this incident.¹²⁵ In his opinion, this was a good settlement.

The M/V Lee Wang Zin: In the case of the capsizing and sinking of the M/V Lee Wang Zin, the vessel owners denied that they were responsible for cleanup of the spilled bunker oil. The Coast Guard, with the assistance of the State, thus took primary responsibility for this activity as well as damage assessment.¹²⁶ Cleanup efforts were hampered by foul weather and the remoteness of the areas where the oil was located.

An estimated 20,000 gallons of the estimated 100,000 gallons spilled was recovered. Available records indicate that ADEC personnel continued to find and remove LWZ oil from various

123. Complaint drafted in the case of the State of Alaska v. Alyeska Pipeline Service Co., Inc. by Doug Mertz, November, 1979. This document is contained in the Alaska Attorney General's archived file on this incident.

124. *Id.*

125. Telephone interview of Alaska Assistant Attorney General Doug Mertz, Juneau Alaska, July, 1988.

126. See *Supra* notes 85 and "Capsizing and Sinking of the M/V Lee Wang Zin," U. S. Coast Guard OSC report, July 9, 1980. Unless otherwise indicated, the other information contained herein with regard to the response to the LWZ spill was also obtained from these documents.

beaches as late as October 1980, 18 months after the incident.¹²⁷ Several oiled birds and a few oiled furbearing animals were found. However, Federal and state biologists determined that the acute toxic effect of the spilled oil on marine life was minimal (this spill occurred in the winter when overall production and activity was at an annual low).¹²⁸ As such, no full scale natural resource damage assessment studies were done and no restocking of affected species was attempted.¹²⁹

Gauging the amount of oil present on the vessel following the spill was not possible since the vessel sank. The estimate of 100,000 gallons spilled and 20,000 gallons removed made by Coast Guard and ADEC officials during cleanup operations was used by the State in determining the amount of the potential penalty under AS 46.03.758.¹³⁰

The State did incur the expense of fingerprinting analyses which were undertaken in an effort to determine whether oil found at various locations had indeed come from the LWZ. The State also participated in a monitoring program of areas affected by the spill over the next several years.¹³¹

There is no information available as to whether the State attempted to determine the aromatic content of the bunker oil spilled. It is perhaps likely that this was never done. In an ADEC memorandum to the Alaska Department of Law, the formula to establish the amount of the penalty imposed by AS 46.03.758 was used without taking this factor into consideration.¹³²

Available records indicate that the ADEC incurred expenses of \$68,495 in responding to this incident. The federal government incurred expenses in the amount of \$2,238,012.08.¹³³ Settlement documents indicate that the State case was ultimately settled for exactly the cost incurred by the ADEC.¹³⁴ According to Bayliss, the federal government also recovered its expenses in its out of court settlement.¹³⁵

127. Bayliss, Randolph, ADEC Southeast Regional office, Juneau AK, and Captain Raymond Spoltman, Anchorage Marine Safety Office, Anchorage AK, "The Wreck of the Lee Wang Zia," contained in the ADEC's archived file on this incident.

128. See *Supra* note 121. See also "The Wreck of the Lee Wang Zia—Report to Senator Ziegler (Status as of January 29, 1980)" by Randolph Bayliss, Regional Supervisor, ADEC, Juneau Alaska.

129. *Id.*, Bayliss report. See also "Lee Wang Zia Oil Spill, Wildlife Observations," by Robert Wood, Biologist, Alaska Department of Fish & Game and Paul Harrington, Biologist, USFS.

130. See Memorandum from Randolph Bayliss, ADEC, to Jonathan Tillingham, Alaska Dept. of Law, May 29, 1980, as contained in the ADEC archived file on this incident.

131. See *Supra* note 127 at p. 21.

132. *Id.*

133. Regarding the expenses incurred by the state, this figure was derived from ADEC office notes contained in the ADEC's file on this incident. Regarding the expenses incurred by the federal government, see *Supra* note 84.

134. Some expenses were also incurred by the Alaska Department of Fish & Game, however, they were apparently not itemized out and thus were not sought in a recovery from the responsible parties. See *Supra* note 133, ADEC office notes.

135. Regarding the state's settlement, see "Release of All Claims" filed in the *Matter of the Complaint of the Lee Wang Zia Navigation Co., S.A. and Kuo Yeh Maritime Co., LTD. for Exoneration from or Limitation of Liability, U.*

Both of these settlements may be interpreted as 'good' for several reasons. First of all even though the court determined that the CWA as opposed to the LLA was the controlling federal statute as to liability for cleanup costs, if these cases had gone to court, the state and federal governments would have incurred both the time and expense of litigation in their efforts to recover the exact amounts settled for without having to go to court. Secondly, the evaluations performed by the federal and state governments in this case concluded that the extent of natural resource damage was minimal. It is possible, if not probable that the PRPs would have been found not liable for the damages which were detected based on the LLA. Finally, it is possible that the State could have recovered approximately \$190,000 in assessed penalties under AS 46.03.753 even if the LLA was found to apply (the penalty would be assessed on the entire 100,000 gallons spilled since the responsible parties did not clean it up). However, in order to recover this amount the State would have had to prove that approximately 80,000 gallons remained in the water after the estimated 20,000 gallons had been removed. Since the vessel sank, establishing this would have been quite a problem.

The Glacier Bay: Finally, in the case of the Glacier Bay spill in Cook Inlet, Alaska, in July, 1987, the Coast Guard took over the cleanup response five days after the spill occurred when it was determined that the PRPs response was inadequate.¹³⁶ The State again assisted the Coast Guard in both cleanup and damage assessment activities. Cleanup efforts were hampered by tides which carried oil ashore and riptides which drove the oil down into the water, releasing it later when the riptides relaxed, sometimes some distance from where originally located.¹³⁷ In all, approximately 18,000 gallons of the current estimate of 50,000-85,000 gallons of crude oil discharged was recovered.¹³⁸

The Alaska Department of Fish and Game contracted several fishing vessels to do test fishing in some areas in order to determine the potential impact of the oil on commercial salmon fishing in those locations.¹³⁹ The State also conducted visual inspections of the salmon caught and funded chemical analyses of both salmon and clams. These studies determined that clams in

S. District Court, District of Alaska, No. A-80-199-Civ, April 1, 1982. Regarding the U. S. settlement, this information was provided by Mr. Beytim. See Supra note 7A.

136. The PRPs response was determined to be inadequate on the basis that they were unable to get the necessary equipment set up as quickly as the Coast Guard OSC wanted. Control over the cleanup operations was returned to the PRPs eight days later when the Coast Guard OSC was sure that they understood what response was expected. See Coast Guard News Releases dated July 8, 1987 and July 17, 1987, as contained in the Coast Guard file on this incident.

137. See "Eleven Oil Hinders Cleanup," by PAC Ed Moroth, in the Coast Guard July-September, 1987 issue (Vol. 3, Issue 4) of the Alaska Boat, and "Crews Wining Oil Battle," by Dirk Miller, The Anchorage Times, July 11, 1987.

138. See "Officials Fian to Scale Down Oil Spill Cleanup," by Roman Chappell, The Anchorage Daily News, July 14, 1987.

139. See "Record Catch—Cook Inlet Drift Fishermen Haul in Record Catch Despite the Oil Spill," by Bert Grubb, Peninsula Clarion, July 13, 1987.

the areas tested were unaffected and that the impact on salmon was less than expected.¹⁴⁰ The drift net salmon fishery was opened on time eight days after the discharge occurred, although some traditionally profitable areas where contact with the oil was most likely remained closed.¹⁴¹ Only about 4,000 of the record 600,000 red salmon caught had to be (officially) destroyed due to oil contamination.¹⁴² However, according to Alaska Assistant Attorney General Michelle Browne, the full impact of the spill on salmon will not be known until the salmon runs potentially affected return to spawn in 1990.¹⁴³ Even then, if the runs are less than anticipated establishing a causal link between the decline and the spill will likely be impossible.

As discussed previously in this paper, the dispute as to the amount spilled is ongoing, and the State has incurred the expense of hiring an outside expert to decipher what the spillers offloading records say.¹⁴⁴ To date, responding to this incident has cost the State over \$500,000 and the Coast Guard over \$1 million.¹⁴⁵ The State is continuing to monitor areas affected by the oil and thus is still incurring expenses in relation to this incident. Neither the State nor the federal government has yet filed a claim against the PRPs. The State has attempted to settle the matter with the PRPs. However, negotiations recently broke off. If a settlement is not achieved, Alaska will file a suit. Since an impact on salmon was documented, the State will actively pursue recovery for this damage. Yet according to Ms. Browne, the 'damages' that the State will claim will be revenues that the State lost as a result of the impact on salmon, not 'damages' in the nature of compensation for the total number of salmon affected.¹⁴⁶ The State will also assert liability for its response costs and the penalties (times 5 based on the assertion of inadequate cleanup efforts) imposed by AS 46.03.758.

As these examples illustrate, and as confirmed by Alaska officials,¹⁴⁷ Alaska's response to oil spill incidents does not typically include full scale natural resource damage assessment studies. From this it may be inferred that the civil penalties imposed by AS 46.03.758 are in practice used to compensate for actual damages. This use of AS 46.03.758 is clearly at odds with its legislative intent. Yet it is evident that the State has been successful in recovering some substantial settlements, sometimes well in excess of the responsible parties' potential liabilities excluding

140. See "Oil Fouls up Estuaries News," by Polly Crawford, Peninsula Clarion, July 15, 1987.

141. See "Despite the Oil, the Fishing will go on," by Bert Grubir, Peninsula Clarion, July 10, 1987.

142. See Supra note 139 and "Cleanup Reduced to Chasing Goo," Homer News, July 23, 1987.

143. See Supra note 73.

144. Id. See also Supra note 72, personal interview with O'Brien.

145. Id. Browne interview, regarding the expense to the state. See "Liability a Slippery Question," by Yerech Rosen, Anchorage Times, July 19, 1987, regarding the Coast Guard expenses. The remainder of the information contained in this paragraph regarding settlement negotiations and a possible lawsuit was offered by Browne during the telephone interview of August 30, 1987.

146. Id. Browne interview. As discussed in Section 3.1.1 above, it is questionable whether a court would allow recovery of both the civil penalties and actual damages based on the double recovery issue.

147. Personal interview with Alaska Assistant Attorney Doug Mertz, June 22, 1988; personal interview with Paul O'Brien, Alaska Department of Environmental Conservation, June 22, 1988.

liability for natural resource damages. This in turn indicates that the civil penalty statute has proven to be a useful tool for the State in achieving compensation for at least some natural resource damage without having to incur the time and expense of damage assessment studies.

It is worth noting that the cases examined above also illustrate that even when natural resource damage assessment studies are not performed, the costs incurred by the State in responding to a spill incident may still be significant. Further, when more detailed studies are deemed appropriate, the costs incurred by the State will increase substantially.

By AS 46.08.020, money recovered by the State for costs incurred in responding to oil spill incidents, as well as the sums recovered as fines, penalties and/or damages, are deposited in the State's general fund and credited to a special account called the 'oil and hazardous substance release mitigation account'.¹⁴⁸ The State legislature may then annually appropriate the amount placed in this account during the preceding year to the 'oil and hazardous substance release response fund' for use by the ADEC in responding to the threat or actual release of oil or hazardous substances during the next year.¹⁴⁹ Focusing specifically on money recovered in oil spill incidents, nothing in these statutes requires the legislature to return these funds to the response fund for use by the ADEC. In turn, nothing in these statutes requires the ADEC to use the money placed in the fund to restock or replenish environments or natural resources impacted by an oil spill incident. Nor does the ADEC have such a policy in place. In fact, as the above examples illustrate, and again as confirmed by Alaska officials,¹⁵⁰ other than reseeded tundra areas affected by an oil spill incident, the State of Alaska does not, or at least has not yet, attempted to restock or replenish fish, waterfowl, wildlife or vegetation impacted by oil pollution. Rather, the emphasis in Alaska is on cleaning up as much of the oil as possible and then relying on the environment to restore itself. As stated by Bayliss, with proper cleanup restoration falls out.¹⁵¹ Further, according to Mertz restoration in the sense of restocking or replenishing impacted resources is not as practical in Alaska as it is in other states, and the environment in Alaska will eventually restore itself.¹⁵²

Yet even though funds recovered by the State in excess of the amount incurred in responding to a spill incident are not used to restock or replenish oil impacted environments, it can be said that commonly at least a portion of this sum is 'returned to the environment' in the form of long term monitoring projects. Conversely, there is no evidence to indicate that if an area affected by oil pollution does not require long term monitoring, that recovered funds will in fact be 'returned to the environment' in any other manner. The point is that the State of Alaska has no policy in

148. AS 46.08.020(a) and (b).

149. AS 46.08.010(b), and AS 46.08.040.

150. See *Supra* notes 74 and 147.

151. See *Supra* note 74.

152. See *Supra* notes 147, Mertz interview.

place which requires these funds to be returned to the affected environment. Rather, this decision is made on an ad hoc basis.

CHAPTER 4. Suggestions for Improving the Effectiveness of Alaska's Oil Spill Liability and Compensation Scheme

This paper has discussed in some detail the legislative history and intent of Alaska's 'Civil Penalties for Discharges of Oil' statute and regulations, as well as how this statute and the regulations have been implemented in practice. Several inconsistencies between legislative intent and practical application, and several shortcomings inherent in the provisions of the law and regulations themselves have been identified. These factors weaken the overall effectiveness of this civil penalty approach as a response to the issues of oil spill liability and compensation. In this final chapter I will discuss how Alaska's oil spill liability and compensation scheme in general, and the civil penalty statute and regulations in particular, might be strengthened to better respond to these issues.

The intent of an oil spill liability and compensation scheme, as it relates to liability for natural resource damages, is to assure that the public is compensated for the natural resource damages resulting from a spill incident. The discussion in Chapter 2 of this paper makes it clear that the civil penalties imposed by AS 46.03.758 are intended to compensate only for the harm that the public suffers as a result of unidentifiable and unquantifiable damages resulting from an oil spill incident. However, as discussed in Chapter 3, Alaska does not typically perform natural resource damage assessment studies aimed at determining the full extent of actual damages. These studies would be necessary in order to pursue compensation for identifiable and quantifiable damages under the more traditional oil spill liability laws. Instead, compensation for these damages are in practice sought through the civil penalties imposed by AS 46.03.758.

Because of several factors unique to the State of Alaska, it may well be that the civil penalty approach will commonly be the most effective way of assuring that the public is compensated for natural resource damages in that state. For example, because of harsh weather conditions, the remote locations where spills commonly occur, and/or a lack of baseline data, natural resource damage assessment studies may simply not be feasible in many cases. However, it should be made clear that there is a tradeoff between using the civil penalties to compensate for actual damages, and determining the extent of actual damages and pursuing recovery of that amount. That is, the civil penalties are by their very nature arbitrary. As such, when the extent of actual damages are not determined, there is no assurance that the civil penalty imposed will adequately compensate for the damage done.

To assure that the public is adequately compensated, the decision to pursue compensation for actual damages through the civil penalties, as opposed to determining the full extent of those damages and pursuing compensation for them under other applicable liability laws, should be based on some criteria that this is indeed the most appropriate response. From the cases

examined in Chapter 3, as well as the interviews held with Alaska officials,¹ there is no indication that Alaska goes through such a decision making process. Alaska's oil spill liability and compensation scheme would thus be strengthened by the introduction of some criteria upon which to base this decision.

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986² (SARA) provides some guidance. In particular, CERCLA Section 301 directs the President, acting through Federal officials, (in this case the Department of Interior (DOI)), to promulgate regulations for assessing the "...damages for injury to, destruction of, or loss of natural resources resulting from a release of oil or a hazardous substance for the purposes of this chapter and section 1321(f)(4) and (5) of Title 33 (The Clean Water Act)."³ The regulations are to specify "(A) standard procedures for simplified assessments requiring minimal field observation, including establishing measures of damages based on units of discharge or release or units of affected area (type 'A' assessments), and (B) alternative protocols for conducting assessments in individual cases to determine the type and extent of short- and long-term injury, destruction, or loss (type 'B' assessments)."⁴ These regulations would be used by a state or federal trustee when the trustee would be seeking recovery for the damages from the responsible party under the provisions of this act.

In the CERCLA natural resource damage assessment regulations promulgated by the DOI, a trustee is required to perform a pre-assessment screen before a damage assessment is done.⁵

1. Personal interview with Alaska Assistant Attorney General Doug Mertz, Juneau, AK, April 20, 1988; personal interview with Paul O'Brien, ADEC, Juneau, AK, April 15, 1988.

2. 42 USC Section 9601-9673.

3. Section 301 (c)(1), 43 USC Section 9651 (c)(1). The president delegated this responsibility to the DOI. See Exec. Order No. 12316, 46 Fed. Reg. 42,237 (Aug. 14, 1981), later superseded by Exec. Order No. 12580, 52 Fed. Reg. 2,923 (Jan. 29, 1987). (This information was obtained from the Brief For Respondents prepared in the case of *State of Ohio v. U. S. DOI and Donald Hodel, Secretary*, on Petition for Review of an Action of the United States Department of the Interior, No. 26-1529 and Consolidated Cases, U. S. Court of Appeals for the District of Columbia Circuit, August 10, 1987). 33 USC 1321 (f) is entitled "Liability for Actual Costs of Removal." Sections (4) and (5) address liability for restoration or replacement of natural resources impacted by a discharge of oil or a hazardous substance.

4. Section 301 (c)(2), 43 USC 9651 (c)(2). The Type 'A' assessment actually consists of a computer program. Various factors including, for example, the location of the spill, the amount spilled, and the time of the year, are put into this program and the program is then supposed to determine the expected fate of the oil, what natural resources can be expected to be impacted, and what the economic value of those damages may be. This approach is intended to establish actual damages without incurring the time and expense of a full scale damage assessment, and is a possible alternative to using civil penalties when a damage assessment is determined to be inappropriate. However, the program presently can only take into consideration a very few different types of oil, and includes only a limited number of receiving environment categories. As such, it is presently of limited value at best. See U. S. DOI, CERCLA 301 Project, "Measuring Damages to Coastal and Marine Natural Resources, Concepts and Data Relevant for CERCLA Type A Damage Assessments," F887-142483, Washington, DC, January, 1987, (two volumes). The Type 'B' assessment is equivalent to what has been referred to here as a full scale natural resource damage assessment.

5. 43 CFR Subpart A, Subpart B—Pre-assessment Phase, and Subpart C—Assessment Plan Phase.

The purpose of the screen is to determine whether a 'reasonable cost' criterion can be met for either the 'type A' simplified assessment procedures or the more detailed 'type B' assessment procedures before either is carried out, so that the costs incurred will be recoverable from the spiller under CERCLA.

DOI has defined 'reasonable costs' in the regulations as follows:

'Reasonable cost' means the amount that may be recovered for the cost of performing a damage assessment. Costs are reasonable when: (1) the Injury Determination, Quantification, and Damage Determination phases (of the actual damage assessment) have a well-defined relationship to one another and are coordinated; (2) the anticipated increment of extra benefits in terms of the precision or accuracy of estimates obtained by using a more costly injury, quantification, or damage determination methodology are greater than the anticipated increment of extra costs of that methodology; (3) and the anticipated cost of the assessment is expected to be less than the anticipated damage amount determined in the Injury, Quantification, and Damage Determination phases.⁶

DOI holds that this definition, and its application in the natural resource damage assessment regulations, means that,

...the natural resource damage assessment must be well planned in advance of the actual conduct of the assessment and expenditure of costs. The assessment must be directed towards achieving a goal—the derivation of a damage amount based on the injuries sustained as a result of the discharge or release. To this end, the trustee is directed to collect only the minimum amount of information required to move from one phase of the assessment to another. In addition, the planned assessment costs should be maintained below the anticipated damage amount. Studies of injury or damages that do not directly contribute to the determination of a dollar value for the injured resource should not be part of the damage claim.

6. 43 CFR Subtitle A, Section 11.14(ee).

7. Brief for Respondents in the case of State of Ohio v. U. S. DOI and Donald Hodel, Secretary, on Petition for Review of an Action of the U. S. DOI, No. 86-1529 and Consolidated Cases, U. S. Court of Appeals for the District of Columbia Circuit, August 18, 1988. In this case the State of Ohio as well as several other states and groups are challenging the natural resource damage assessment rules promulgated by the DOI. With regard to the 'reasonable cost' criterion, petitioners focus on the third requirement of the definition (that the anticipated cost of the assessment is expected to be less than the anticipated damage amount) and assert that this requirement is arbitrary, that the reasonableness of a cost cannot be determined mechanically as the DOI provides, and that a limit on recovery of essential costs based on a strict proportionality is not reasonable. (See Joint Opening Brief of Petitioners in State of Ohio v. U. S. DOI and Donald Hodel, No. 86-1529 and Consolidated Cases, U. S. Court of Appeals for the District of Columbia Circuit, April 25, 1988 at pp. 79-80). DOI responds that petitioners have incorrectly focused on this single aspect of the definition, and thus fail to recognize that the definition in its entirety neither results in an irrational one-to-one linkage of assessment costs to that of expected damages nor discourages trustees from performing assessments to recover damages. The definition specifies anticipated costs and damages. Thus, the design of the assessment to be done is based on the anticipated damage amount. The trustee is not precluded from expanding the assessment and its costs if sufficient information gathered during the assessment warrants collecting additional data, using other methodologies, or applying other procedures. Thus, the DOI asserts, the regulations are not inflexible in their allowance for 'reasonable and necessary' costs of performing assessments. In fact, the regulations are flexible in allowing the trustee to design an assessment consistent

As envisioned here for use in Alaska, each resource potentially impacted by an oil spill would be evaluated during the reconnaissance stage with regard to whether the three elements of CERCLA's 'reasonable cost' criterion, or a criterion modeled after CERCLA's, can be met. If the requirements of the criterion cannot be met, then compensation for that resource would be sought through the civil penalty provisions of AS 46.03.758. If it can be met, a damage assessment would proceed and compensation for the amount of damage determined would be sought under one of the other applicable liability laws. Alaska could still pursue compensation for unidentifiable and unquantifiable damages. However, rather than referring to them as damages which cannot be determined, they might more accurately be referred to as damages which cannot be identified and quantified at a reasonable cost, based on the 'reasonable cost' criterion.

Using a 'reasonable cost' criterion as a basis for the decision on whether to pursue compensation under the civil penalty statute or under one of the other applicable liability laws would strengthen Alaska's oil spill liability and compensation scheme in several ways. First of all, it would assure that compensation is sought in the most effective and appropriate way. Secondly, it would provide a focus for reconnaissance activities. Rather than simply determining, for example, that overall damages 'may be expected to be minimal,' each resource would be examined individually and evaluated in the same manner. This would assure consistency between damage assessment studies conducted following any particular spill, as well as consistency between damage assessment studies conducted among different spills.

Further, by forcing state officials to closely examine all resources potentially impacted by a spill, this process might also identify some damages for which compensation might not otherwise be sought. This situation was identified by Geselbracht and Leschine in an examination of Washington State's natural resource damage assessment procedures.⁸ In particular, they found that damage assessments were not performed, and thus no damage claims were made, for some resource damage where recovery might well have been accomplished.⁹

Evaluating resources based on a 'reasonable cost' criterion might also provide the State of Alaska with valuable information. For example, Alaska may find that the extent of actual damages for some resources can in fact be determined within the confines of the 'reasonable cost' criterion. The information

with the anticipated damage amount. (See Brief for Respondents cited above at pp. 97-98). This case is still pending. CERCLA's 'reasonable cost' criterion might not be the appropriate criterion for use in Alaska. It is offered here only as an example of a criterion that Alaska could use for making a determination as to whether compensation for damages should be sought through the civil penalties or through a damage assessment process.

8. Geselbracht, Laura and Thomas M. Leschine, "Washington's Compensation Recovery Mechanisms for Aquatic Resource Damages from Pollutant Spills: A Review and Appraisal." A Report from the Oil Spill Damage Assessment Study, Institute for Marine Studies, University of Washington, Seattle, WA. Final Draft, October, 1988.

9. Id.

gained might well serve as the beginning of the state's baseline data in many areas, but in any case it would be valuable information if a spill should occur in the same location at a later date.

Finally, going through the same evaluation for every resource potentially impacted would strengthen the State's case when a civil penalty is assessed in lieu of actual damages. In particular, when the 'reasonable cost' criterion cannot be met due to, for example, harsh weather conditions or the remote location where a spill occurs, the State would have a strong basis for asserting that the civil penalty is indeed the most appropriate way of compensating the public for the damage against which it is assessed.

By specifically allowing the civil penalties to compensate for actual damages, if both the civil penalty and compensation for actual damages are sought in a given case, the double recovery issue would surely be raised. To avoid this, when the extent of actual damages to a particular resource is determined, the monetary value of this harm could be reduced from the total penalty amount to be assessed in that case. The remaining amount of the civil penalty could still be recoverable as compensation for the remaining damages which reconnaissance activities indicate cannot be fully quantified within the constraints of the 'reasonable cost' criterion. When actual damages exceed the total assessed penalty, to avoid the double recovery issue the State could pursue only the actual damage amount.

This oil spill liability and compensation scheme could also be manipulated in a way which has not been tried in the State of Alaska. That is, if spilled oil enters two different receiving environments, the civil penalty could be used to compensate for damages in one area (based on the number of gallons entering that environment), while actual damages, or the civil penalty less actual damages, could be pursued in the second area. Here again, a double counting of damages would be avoided.

With Alaska's oil spill liability and compensation scheme modified in this way, many of the inconsistencies between intent and implementation as well as many of the shortcomings identified in the civil penalty statute and regulations themselves might be addressed and resolved.

First of all, the amounts of the civil penalties in the statute and regulations were originally intended to compensate only for the harm resulting from unidentifiable and unquantifiable damages. However, as used in practice, and as suggested here, the civil penalties are considered as compensation for actual damages as well. The amount of the penalties should thus be reviewed and if appropriate, raised. Several Alaska officials have in fact expressed some concerns about the amount of the fines in the existing civil penalty schedule. For example, Bayliss asserts that the maximum \$10 penalty is 'not close to a good deal for the environment.'¹⁰ Mertz also feels that the penalty amounts are not particularly high, and notes that they have not been adjusted for

10. Personal interview with Randsorpe Bayliss, former director of the Alaska Department of Environmental Conservation, Valdez office, in Juneau AK on April 18, 1988.

inflation since the law came into effect over ten years ago.¹¹ Finally, O'Brien also implies that the penalties are too low and suggests that the schedule might be better if it were more evident where the base penalty amounts came from.¹²

One will recall that the amount of the penalties imposed vary from the base penalty amounts depending on the productivity and sensitivity of the receiving environment, and the toxicity, degradability, and dispersal characteristics of the oil. As discussed in Chapter 3, when the regulations were being formulated the State of Alaska was limited to including only biological criteria (and only a limited number of biological criteria were actually used) in determining the sensitivity and productivity of the receiving environments, and the toxicity factor takes into consideration only the aromatic content of the oil spilled. Again, the civil penalties were intended to compensate only for the harm done as a result of unidentifiable and unquantifiable damages, not actual damages. The State would still have been able to pursue compensation for actual damages under the other applicable liability laws. As such, it is arguable that the receiving environment categories and oil characteristics did not need to be determined as precisely as possible. However, allowing the civil penalties to compensate for actual damages in those cases where a 'reasonable cost' criterion indicates that a full scale damage assessment is not appropriate suggests that the receiving environments and the oil characteristics should be more thoroughly evaluated. For example, more biological criteria could be taken into account. Also, non-biological factors such as recreational values may affect the overall value of an area to society. These factors may be worth taking into consideration as well.

Regarding the oil characteristics, other factors besides aromatic content may influence the toxicity of an oil (for example nitrogen, sulfur and oxygen compounds). These other factors could be examined and included in the oil characteristic criteria if appropriate in order to better capture the actual toxic effects of oil. Further, as discussed in Chapter 3, the purpose of the modification factor numbers in the penalty schedule is unclear. The formula for assessing the per gallon penalty should thus be re-examined. Yet it must be acknowledged that while it may be possible to formulate a civil penalty schedule with a more solid foundation than the one presently used in Alaska, these are civil penalties, as opposed to actual damages, and as such it will be impossible to avoid at least some measure of arbitrariness.

As a practical matter, it is doubtful that the maximum \$100 million penalty will ever be assessed in any oil spill case. However, under the other Alaska statutes which impose liability for actual damages, the responsible party is held liable for those damages to an unlimited maximum amount. Since the penalties are being discussed here as compensation for actual damages, if the

11. See *Supra* note 1, Mertz interview.

12. See *Supra* note 1, O'Brien interview.

assessed penalty should ever exceed this ceiling, the responsible party should be held liable for the total amount. As such, this ceiling should be removed.

Next, one will recall from Chapter 3 that the mitigation clause as interpreted in practice could potentially re-open the whole question of actual damages. As suggested here, the civil penalty would take into account actual damages. However, by using a 'reasonable cost' criterion the State would have a stronger basis for asserting that the assessed penalty or the damage amount claimed is appropriate. When a penalty is deemed appropriate based on this criterion, the question of actual damages should be precluded. As such, the mitigation clause should be removed.

As indicated in Section 3.3.6 above, the 18,000 gallon exemption as entailed in the civil penalty schedule has in practice hindered enforcement efforts. For example, according to Browne, experience has shown that small spills can cause a great deal of damage. Yet as noted by Mertz, it is prohibitively expensive for the State to pursue recovery for the damage resulting from 'small' spills, and thus they tend to slip through the system. It is likely that in many cases it will be more difficult to meet the 'reasonable cost' criterion for small spills than large spills. Or in other words, that full scale natural resource damage assessment studies will be deemed appropriate more often in cases of large spills than small spills. In order to assure compensation for damage which may result even from a small spill, the 18,000 gallon exemption should be removed.

Finally, with regard to the reduction in the assessed penalty based on the amount of oil cleaned up, as discussed in Section 2.5.2, when this civil penalty statute was being considered in the legislature the State argued that cleanup takes time and as such some natural resource damage would still result. Further, as discussed in Section 3.3.5, it is questionable how effective this provision is as an incentive to clean up spilled oil. Also, if a responsible party was held liable for actual damages, there would be no credit in the damage amount for oil removed. Again, as discussed here the civil penalties would be assessed in lieu of actual damages, not in addition to them. Based on all of these considerations, this provision should be removed.

A comment regarding the use of recovered funds is worth noting. As discussed in Chapter 3 above, restoration or 'returning recovered funds to the environment' is not a priority in the State of Alaska. However, under the present system, the full extent of actual damages are not in fact determined. As such, the State never has knowledge of the monetary value of that damage for purposes of returning that amount to the environment. Under the modified scheme being discussed here, when the 'reasonable cost' criterion indicates that the actual extent of damage to a resource should be determined, it is perhaps reasonable to suggest that Alaska should consider returning at least this amount to the environment. Support for this suggestion might be found in federal natural resource liability statutes. Specifically, CERCLA as originally enacted only required that sums recovered for natural resource damage be available for use to restore, rehabilitate, or to

acquire the equivalent of the injured resources.¹³ However, CERCLA, as amended by SARA now requires that recovered sums be used for these purposes.¹⁴

In conclusion, Alaska's experience with AS 46.03.758 has shown that the civil penalty approach is a viable method of assuring that the public is compensated for damages resulting from oil spill incidents. However, this paper has identified several inconsistencies between the legislative intent of this statute and its implementation, as well as several shortcomings inherent in the provisions of the statute and regulations themselves. This chapter has suggested how these factors might be addressed in order to make Alaska's overall oil spill liability and compensation scheme more effective. While this modified scheme is being offered to Alaska as an alternative to its present one, it is a viable scheme for other states as well. As such, it is hoped that the information provided in this paper might prove useful to other states contemplating a review of their present oil spill liability and compensation schemes.¹⁵

13. 42 USC 9607(f) (before being amended by SARA).

14. 42 USC 9607(f) (following the SARA amendments of 1986).

15. Concern over the relationship between the cost of natural resource damage assessment studies and the amount of damages ultimately claimed has led the Washington State legislature to request a review of that State's procedures for deciding when damage assessment studies are appropriate. See Washington Laws, Chapter 479, Second Substitute Senate Bill No. 5986, Oil Spills, Section 1, 1987. This examination and evaluation of Alaska's civil penalty statute has in fact been done as part of this study.

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APPENDIX A: RECEIVING ENVIRONMENT CLASSIFICATIONS. Source: 18 Alaska Administrative Code, Chapter 75, Article 5, 'Schedule of Civil Penalties,' Register 103, October, 1987. Classifications of public land environments as contained in 18 AAC 75.530 have been omitted.

18 AAC 75.510. FRESHWATER ENVIRONMENTS

(a) Freshwater environments with significant aquatic resources are classified as follows:

Critical

--surface & subsurface water supplies with a water use permit or which are in fact being used for a purpose that would qualify for a water use permit;

--rivers, lakes and streams designated under AS 16.05.870(a) as important for spawning, rearing, or migration of anadromous fish, and the fresh waters which flow or empty into those waters;

--lakes, streams, rivers and freshwater wetlands w/i the boundaries of land administered under the National Wildlife Refuge System, and the fresh waters which flow or empty into those waters;

--lakes, streams, rivers and freshwater wetlands w/i the boundaries of game reserve areas, refuges, critical habitat areas, and sanctuaries established under AS 16.05.255(1) or AS 16.20, and the fresh waters which flow or empty into those waters

--lakes, streams, rivers and freshwater wetlands w/i the boundaries of fish reserve areas, refuges, critical habitat areas, and sanctuaries established under AS 16.05.251(1) or AS 16.05, and the fresh waters which flow or empty into those waters;

Sensitive

--lakes, freshwater wetlands and subsurface fresh waters other than those classified as 'critical'

(b) All freshwaters not classified above are classified as 'without significant aquatic resources.'

APPENDIX A (Cont.)

18 AAC 75.528. MARINE ENVIRONMENTS

(a) Estuarine, intertidal and saltwater environments:

Critical

--marine waters w/i the boundaries of state games refuges established under AS 16.05.255(1) or AS 16.20;

--marine waters w/i the boundaries of fish and game critical habitats established under AS 16.20;

--marine waters w/i the boundaries of marine sanctuaries established under 33 USC 1401 *et seq.*;

--marine waters w/i the boundaries of areas administered under the National Wildlife Refuge System;

--marine waters w/i one statute mile of the mouth of waters designated under AS 16.05.870(a) as important to spawning, rearing or migration of anadromous fish;

--marine waters w/i one statute mile of a seabird colony or marine mammal rookery or hauling ground identified in Alaska's Wildlife and Habitat, January, 1973; and

--marine waters w/i the barrier island-lagoon ecosystem--from the Colville River to Canning River, seaward to the Copper River delta.

Sensitive

--the inside waters of Southeast Alaska not otherwise classified as 'critical';

--saltwater wetlands and other intertidal and estuarine areas not otherwise classified as 'critical';

--Prince William Sound, and the bays, arms, fjords, ports and other marine waters of Prince William Sound; and

--all marine waters w/i 10 statute miles of any point of those marine waters designated as 'critical.'

(b) All marine waters not classified above are classified as 'without significant aquatic resources.'

APPENDIX B: CHARACTERIZATIONS OF PETROLEUM PRODUCTS AND BYPRODUCTS.

Source: 18 Alaska Administrative Code, Chapter 75, Article 5, 'Schedule of Civil Penalties,' Register 66, July, 1978.

18 AAC 75.540. TOXICITY OF PETROLEUM PRODUCTS/BYPRODUCTS

Highly Toxic	Mod Toxic	Less Toxic	Relative nontoxic
#1,2 & Arctic diesel fuel & heating oil	waste oil & waste mixes	bunker & residual fuel oils	asphalts
jet aviation fuels A & B	lubricating oil	hydraulic fluids	tars
motor gasoline including aviation gasoline	all other jet fuels		all other petroleum products & byproducts
kerosene	crude oil		
stationary turbine fuels			

18 AAC 75.550. DEGRADABILITY OF PETROLEUM PRODUCT/BYPRODUCT

Low	Moderate	High
asphalt	hydraulic fluids	motor gasoline including aviation gasoline
tar	lubricating oil	#1,2 & Arctic diesel fuel & heating oil
bunker & residual fuel oils	waste oils, waste oil mixtures	jet & stationary turbine fuels
all other petroleum products/byproducts	crude oil	kerosene

APPENDIX B (Cont.)

18 AAC.560. DISPERSIBILITY OF PETROLEUM PRODUCTS/BYPRODUCTS

High	Moderate	Low
motor gasoline, including aviation gasoline	emulsified oil mixes	bunker & residual fuel oils
all jet fuels	lubricating oils	asphalts
kerosene	waste oils & waste oil mixtures	tars
#1,2 & Arctic diesel fuel & heating oil	crude oils	all other petroleum products/byproducts
hydraulic fluids		
stationary turbine fuels		

APPENDIX C: DETERMINING THE CIVIL PENALTY. Source: 18 Alaska Administrative Code, Chapter 75, Article 5, 'Schedule of Civil Penalties,' Register 66, July, 1978. The base penalties for public land receiving environments as contained in 18 AAC 75.570(1) have been omitted.

18 AAC 75.570. Schedule of Civil Penalties

The civil penalty which a person may be held liable for under AS 46.03.758(e) is established as follows:

(1). Base penalty for discharges into various receiving environments is as follows:

	Freshwater	Marine
Critical envt. resources	\$10.00	\$2.50
Sensitive envt. resources	\$5.00	\$2.00
W/O significant envt. resources	\$1.00	\$1.00

(2). Toxicity, degradability and dispersibility factors are as follows:

Toxicity [#]	Factor	Degradability ^{##}	Factor
High	1.00	Low	1.00
Moderate	0.75	Moderate	0.50
Less	0.50	High	0.25
Relatively nontoxic	0.25		

Dispersibility	Factor
High	0.15
Moderate	0.50
Low	1.00

(3). The net per gallon penalty is calculated by multiplying the base penalty (Number 1) by the arithmetic mean of the toxicity, degradability and dispersibility factors (Number 2). If a portion of the oil enters more than one receiving environment, the penalty is based on the most sensitive receiving environment which that portion of the oil enters.

APPENDIX C (Cont.)

*To determine the toxicity factor, the factor from the table is multiplied by a fraction whose numerator is the percent concentration of aromatics in the oil and denominator is 45. The toxicity factor shall never exceed 1.0. For crude oil, the toxicity factor is multiplied by a fraction whose numerator is the API gravity of the crude and whose denominator is 30.

**For crude oil, the degradability factor is multiplied by a fraction whose numerator is 30 and whose denominator is the API gravity of the crude.

Formula for assessing the penalty for refined petroleum products:

$$\frac{(\text{Tox}\# \cdot (\% \text{ aromatics} / 45) + \text{degr}\# + \text{disp}\#)}{3} \cdot \text{penalty} \cdot \text{volume}$$

Formula for assessing the penalty for crude oil:

$$\frac{(\text{Tox}\# \cdot (\text{API} / 30) + \text{degr}\# \cdot (30 / \text{API}) + \text{disp}\#)}{3} \cdot \text{penalty} \cdot \text{volume}$$

18 AAC 75.530 Prosecutorial Discretion

In appropriate cases the department will, in its discretion, either settle actions out of court for less than the full penalty or decline to file a suit under AS 46.03.758.

18 AAC 75.590 Annual Reporting

Within 10 days after the convening of each regular session, the department will report to the legislature on actions brought during the preceding year, and the status of those cases.

6

Alaska Oil Spill Commission

Final Report

SPILL

The Wreck of the *Exxon Valdez*

Implications for Safe Transportation of Oil



The state should require maintenance and personnel audits at oil transportation facilities to provide information and pinpoint problems in spill prevention.

Recommendation 19
Maintenance and
personnel audits

Accurate, timely information is central to the exercise of the oversight function and must be available to all government actors in prevention and response. The state can gather information on conditions relating to spill prevention through technical maintenance audits, thereby supporting the work of the state advisory council and regulatory agencies. Technical and personnel audits may be done by outside contract.

Training and experience standards for marine pilots in Alaska should be upgraded to require actual experience in Alaska operations of vessels at thresholds of 60,000 and 150,000 deadweight tons.

Recommendation 20
Marine pilot
qualifications

Training and experience requirements have been reduced for pilots of large tankers in Prince William Sound and Cook Inlet since the late 1970s, allowing pilots to qualify for very large ship operations on insufficient experience. While no accidents have been caused by this circumstance, a system with multiple thresholds is inherently safer.

Insurance policies should identify the State of Alaska as an additional insured or named beneficiary.

Recommendation 21
State as co-insured

The shipping industry is responsive to economic incentives. Insurance premiums and premium requirements create incentives. The insurance industry is responsive to the needs of co-insureds. Such practices were required during construction of the trans-Alaska pipeline. There is every reason to revive them.

The state should set rigorous requirements for private oil spill prevention and response capability in remote locations. The state also should develop response plans for major spills and articulate a prevention program from the Aleutian Islands to the Arctic.

Recommendation 22
Remote spill
response

Despite the state's obligation to respond to major spills, only if private resources are committed to prevention systems and response can an acceptable reduction in risk be achieved.

Marine traffic in arctic Alaska already poses unacknowledged risk. Fuel provisions delivered by sea and vessels fueled by oil create risks of damage in these hazardous and environmentally fragile waters. Spills are usually impossible or much more

the time of the accident. The wreck would not have occurred if the Coast Guard had prioritized the installation of up-to-date vessel monitoring systems. The wreck would have been less likely if the Coast Guard had exercised strong oversight of tanker crews and manning practices.

The Coast Guard's power to determine required crew levels is of little consequence as exercised. The determination is largely a paper exercise in which the shipper submits a proposal that typically is routinely approved without inspection, sea trials or a determination of need under foreseeable emergency or unusual conditions.

In the normal course, Coast Guard personnel retire or transfer to the shipping industry in large numbers, particularly at the executive level. It may be that the prospect of working for industry is reflected in the attitude of some Coast Guard personnel. The "revolving door" and the resulting sympathy of interests between regulators and the regulated is a common problem in other areas of government service.

Congress should revisit the antitrust exemption granted to marine industrial insurance to require that premiums reflect design and operational considerations in accident prevention and pollution abatement.

The shipping industry is responsive to economic incentives. Insurance premiums and premium requirements create incentives. Congress has adopted special provisions concerning the conditions under which marine insurance is exempt from antitrust regulation. Various requirements must be observed as a condition of the exemption. These conditions should require additional features affecting premium structure and loss control to encourage design improvements and operational practices that enhance environmental safety in the shipment of oil.

Congress should require corporations transporting oil or hazardous substances to file environmental safety reports as part of their Securities and Exchange Commission 10K filing. These corporations also should include a separate environmental report card in their annual reports to shareholders.

Safety is a factor in long-term profitability that may be neglected in management preoccupation with annual profit. Safety is a factor of cost and accountability. SEC requirements are intended to inform investors of facts needed to assess risk. A company's record and status concerning environmental safety should be available to inform such assessments.

A company responsible for oil transportation should report to its shareholders on the safety of its operations in addition to their profitability. The report should include an

Recommendation 32
Insurance premiums
to reflect risk

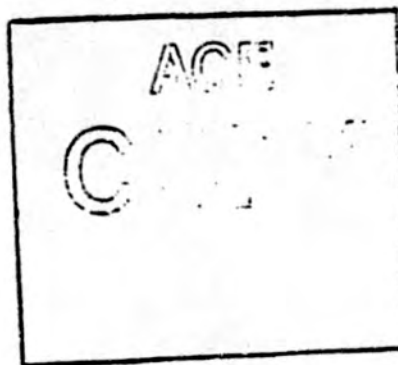
Recommendation 33
Corporate safety
reporting

7

SPILL

The Wreck of the *Exxon Valdez*

Appendix A-I



APPENDIX G

**THE ROLE OF INSURANCE FOR
THE PREPAREDNESS AND RESPONSE TO OIL SPILLS:
LIABILITY AND COMPENSATION ISSUES**

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THE PREPAREDNESS AND RESPONSE TO OIL SPILLS:
LIABILITY AND COMPENSATION ISSUES**

**PREPARED FOR
THE ALASKA OIL SPILL COMMISSION
UNDER CONTRACT #026**

BY

THE MITIGATION ASSISTANCE CORPORATION

DECEMBER 1989

ACE 531055

**THE ROLE OF INSURANCE FOR
THE PREPAREDNESS AND RESPONSE TO OIL SPILLS:
LIABILITY AND COMPENSATION ISSUES**

INTRODUCTION

The insurance industry can potentially be an important partner in a comprehensive program to reduce oil spill losses by providing insurance incentives for the safe transportation of oil and other hazardous cargo. This research paper seeks to examine the current state of the maritime insurance industry -- in general and in Alaska -- and offer suggestions on how insurance can play a role in reducing losses and improving preparedness and response. Information on pollution insurance was gathered from reports in insurance journals, congressional testimony, and articles and analyses by insurers, academics, newspapers, and government publications. In addition, telephone interviews were conducted with insurance representatives from Exxon, the Lloyd McClennan Insurance group, and the National Flood Insurance Program.

Exxon has accepted responsibility, but not liability, for oil damages resulting from the accidental grounding of the Exxon Valdez in March of 1989. To date, Exxon has spent \$1.25 billion in cleanup and in the payment of damages to individuals and businesses that suffered from the direct impacts of the oil spill, including economic injury due to lost business (Wall St. Journal November 30, 1989). In addition to further cleanup and unresolved private claims, Exxon faces potentially huge fines and penalties under numerous state and federal statutes governing water pollution. The Alyeska Pipeline Service Company may be as liable as Exxon since it is obligated under the Prince William Sound Contingency Plan to respond to, contain, and clean up spills in the Sound. "Alyeska handed off the spill response to Exxon without approval by the state, and Exxon's subsequent response was not according to the state-approved plan" (Oil Spill Chronicle November 14, 1989). In any case, judgments regarding liability and compensation are sure to be discussed in the courts for years.

INSURANCE THEORY

Insurance offers a means of managing risk by distributing it among large numbers of individuals or enterprises. Risk is the possibility of injury or loss. Through the payment of insurance premiums, "the insured avoids the risk of suffering a large loss by substituting the certainty of suffering a small one... in effect, the insurer distributes risk among all of its insureds" (Abraham 1986).

It should be noted that there are a number of ways besides insurance to manage risk. In oil transportation, optimizing safety through advanced technology, training programs, adequate staffing, repair and maintenance, response plans, and other methods is a particularly important means of risk management. Within the insurance industry, risk pools, deductibles, and policy limits are risk management techniques.

In theory, insurance assigns the costs and benefits of risk exposure to those who experience the risk, stimulates the policy holder's motivation to avoid risks "through a differential rate structure which rewards prudence and penalizes imprudence," and provides for accumulation of reserve funds to meet large payout requirements associated with rare catastrophic occurrences. In practice, however, insurance functions depend on the price of the service, the appeal of the service, the industry's willingness to provide the service, and industry's assessment of its capacity to meet extraordinary payouts without sacrificing its economic viability (Petak and Atkisson 1982).

As the industry's assessment of its ability to accurately predict risk declines, the prices for the service rise, or may not be offered at all. When a solid actuarial base of information concerning the probability of loss to particular persons or properties under particular defined circumstances is missing, the price goes up or the industry's willingness to engage in the service goes down (Petak and Atkisson 1982).

When such prohibitive conditions exist, the federal government may become involved in order to help remove disincentives to purchase, assist in assessing risks, and assist in developing reserves, or "capacity," for meeting very large payouts (e.g., flood insurance and earthquake insurance, discussed below). The federal government could also assume a more direct role by: (1) sharing in premium payments (with state and local governments), (2)

acting as a direct reinsurer for prime oil spill insurance carriers, or (3) providing research, technical assistance, and financial support in the establishment of state insurance programs (Petak and Atkisson 1982).

Currently, there is pending federal oil spill legislation that exceeds these possibilities. The legislation is titled the "Oil Pollution Prevention, Response, Liability, and Compensation Act of 1989." It has been passed by the House of Representatives as HR 1465 and is currently before the Senate for modification, amendment, and passage. This legislation will combine, supercede, and improve a host of earlier laws.

A stronger regulator role (than Petak and Atkisson's or the pending legislation) might require the purchase of a particular type of insurance as a condition for receiving federally insured loans, federally subsidized loans, and/or loans provided by federally regulated financial institutions. The insurance industry strictly opposes such "mandation," unless it is accompanied by means to protect insurers from huge payouts in catastrophic incidents. There exists, however, many examples of mandatory insurance: states require purchase of no-fault automobile insurance, lenders require purchase of fire insurance, states require purchase of workmen's compensation insurance, etc. A variation of required insurance is contingent insurance, where coverage (either private or federal) is provided only when certain conditions, such as licensing, manning, training, and equipment standards are met.

HAZARD INSURANCE

Insurance as Hazard Policy

The development of the National Flood Insurance Program (NFIP) and the investigation into a national earthquake insurance program has grown out of a recognition that these hazards are national problems with far-reaching economic impacts. These federal programs also attempt to fill the void created by the private insurance industry's inability to market this type of service profitably. These programs also recognize the limited means that potential victims otherwise have to protect themselves and reduce their vulnerability to hazard risks. These programs are designed to meet needs similar to those posed by a potential oil spill.

The primary difference between federal flood and earthquake insurance and federal oil spill insurance is that in the former, insurance is purchased by those at risk from losses resulting from unpredictable natural events. Oil spill insurance (if it were to become available) would be purchased by those responsible for losses resulting from preventable human error or mechanical failure. Insurance from floods and earthquakes (potentially) gives those at risk from losses some control over their own protection. Oil spill insurance would protect the spiller from liability claims resulting from those at risk to losses, who have no way to protect themselves other than placing the responsibility for compensation with those responsible for the damage. Under these programs, potential victims can protect themselves against flood or earthquake, but not the effects of oil spills. In the latter instance, the victim's only protection is being provided by the perpetrator. Thus, the latter is really compensation, not insurance.

Vulnerability is the susceptibility or exposure to injury, loss, or liability from a hazard. Alaska's vulnerability to oil spill hazards is largely a consequence of national energy needs and the development of Alaska's oil reserves, the Trans-Alaska Pipeline, and the transportation of oil through the state's sensitive coastal environment. People, businesses, economics, natural resources, and the environment are potentially vulnerable. The considerable risks are nonetheless acceptable to local, state, and national interests, who share with private industry in the benefits and risks involved. As a petroleum-dependent society, it is said that "we're all in the oil business" because to some degree, all Americans are affected by Alaska's oil trade, which accounts for nearly one quarter of U.S. petroleum production. Considering this, and the possibility that private industry may not be able to insure oil pollution liability in the future, arguments for a user's tax or national insurance program to compensate oil spill losses may deserve further examination, and in fact, is an element of the pending federal oil spill liability legislation.

Insurance as a Mitigation Tool

Hazard mitigation "is a management strategy that balances current actions and expenditures with potential losses from future hazard occurrences" (Petak and Atkisson 1982). Mitigation activities go further than distributing or sharing the risk and are intended to

eliminate or reduce the probability of occurrence of a hazard event, or reduce the impacts of hazards that do occur. Successful mitigation usually involves a combination of approaches in a coordinated, cost-effective strategy. Providers of fire insurance, for example, offer mitigation incentives by basing a community's fire coverage premiums partly on factors such as proximity to fire stations and hydrants, available water pressure, hose diameters, and number and type of fire trucks. Local governing boards maintain favorable fire insurance rate classes for their communities by ensuring that fire alarms, water supplies, facilities, staffing, equipment, and training exceed industry standards. While the cost to a community for these improvements could easily be \$1 million, each structure owner's premium might be reduced by \$25.00. In a community of 50,000 insured structures, this would represent an *annual* savings of \$1.25 million.

Some general insurers are encouraging comprehensive prefire plans for large facilities, businesses storing hazardous and flammable substances, and structures containing costly assets, such as computers. The two objectives of prefire planning are to identify potential fire hazards in specific facilities and to familiarize firefighters with these hazards in advance. Prefire plans consider building characteristics, fire suppression systems, available public fire protection, warning systems, evacuation plans, hazards in proximity, assignment of emergency duties, coordination with law enforcement, emergency medical services and local media, and types, quantities, and locations of hazardous and flammable materials (Brotzman 1989). Both approaches to fire insurance provide incentives to reduce fire losses by maximizing the firefighting capabilities of the response system. Provisions in the national flood and earthquake programs offer additional examples of how risks may be balanced with proactive efforts to prevent or reduce losses.

National Flood Insurance Program (NFIP)

The 1968 National Flood Insurance Act (Public Law 90-448) made nationally-subsidized flood insurance available to individuals in communities that enforced federally approved floodplain management regulations. Following passage of a 1969 amendment, floodprone communities could become eligible for limited amounts of flood insurance under an "emergency phase." As detailed flood maps and local regulations were developed,

communities could enter the "regular" program, whereby larger amounts of insurance coverage became available to policyholders (May and Williams 1986).

The Flood Disaster Protection Act (Public Law 93-234) in 1973 mandated that floodprone communities regulate their floodplains or forfeit access by its residents to federal loans and loans from federal institutions. This regulation was softened in 1977 to prohibit only federal disaster flood relief, unless flood insurance was purchased.

The Federal Emergency Management Agency (FEMA) is the federal agency responsible for managing the flood insurance and disaster relief programs. FEMA's responsibilities in implementing the program fall under two categories: insurance activities (e.g., enrolling individual participants, establishing rates, paying claims) and floodplain management activities (e.g., establishing flood zones, enrolling communities, establishing standards). Flood insurance is available only to individuals in communities that have adopted a floodplain ordinance and regulations developed under FEMA guidelines. The objective of the ordinance is to ensure that proposed development does not aggravate existing flood hazards and that new buildings will be protected from future floods. Communities that do not adhere to the floodplain management standards may be suspended from the NFIP. Communities and individuals may appeal suspensions or locations of structures on FEMA maps. Of the roughly 20,000 floodprone communities in the U.S., over 17,000 participate in the NFIP (May and Williams 1986).

In an effort to recognize and encourage community activities that go beyond minimum program standards to reduce flood losses, the NFIP has developed a Community Rating System that awards flood insurance premium credits to communities that undertake: (1) public information activities, such as outreach projects; (2) mapping and regulatory activities, such as open space preservation; (3) flood damage reduction activities, such as flood control projects; and/or (4) preparedness activities, such as flood warning systems. Like fire insurance incentives, there is an enormous potential savings to constituents of a jurisdiction willing to fund some major improvements that will mitigate the risk.

Earthquake Insurance

In response to the limited availability and high cost of earthquake insurance in high risk areas of the U.S., a federally-supported system has been developed to cover catastrophic losses and protect insurers and reinsurers from "institution-destroying loss levels," where reserves are insufficient or the magnitude of an accident exceeds worst-case scenarios (Petak and Atkisson 1982).

Underwriters of earthquake insurance need to establish the Probable Maximum Loss for each hazard zone and for individual locations in order to determine total earthquake exposure and reinsurance needs. The most important and most elusive factors affecting earthquake underwriting decisions are probability that an earthquake will occur and estimated maximum intensity. However, utilizing probability studies, seismic building codes, and hazard mitigation recommendations, geologists today are much more capable of making these projections. Other factors that influence the underwriting include: proximity to known faults, height of structure, soil conditions, age of structure, type of construction, type of materials, and the value of contents (Holtom 1989).

Although earthquakes are beyond anyone's control, the selection of risks, underwriting standards, retentions, deductibles, and rates are not. Careful consideration of these factors can take some of the unknowns out of earthquake underwriting (Holtom 1989).

Currently the federal government is investigating the possibility of establishing a national earthquake insurance program, similar to the flood program, where insurance would be made available at a subsidized rate, but only after a community adopts regulations that require new construction to meet seismic safety standards and perhaps the retrofitting of certain classes and types of older, more vulnerable structures.

Development of an "actuarially sound national catastrophe fund" to compensate oil spill victims from federal and state and oil industry contributions might accomplish essentially the same ends "as a more conventional insurance system" (Petak and Atkisson 1982).

MARITIME INSURANCE

Commercial insurers provide maritime insurance to cover the hull, cargo, and, to some extent, the liability associated with the transportation by commercial vessels. The U.S. hull insurance market grew up following World War I in order to accumulate capacity, develop underwriting expertise, and keep expenses under control. The American Hull Insurance Syndicate, comprised of 55 member companies, was formed to create a single agency for the underwriting of hull business, such as issuing policies, collecting premiums, and settling claims on behalf of its member companies. There is also a market of independent insurance companies writing hull business. Together, they have a capacity of over \$80 million (about \$40 million each). The Syndicate also insures ship owners outside the U.S. and is active in reinsurance relationships with European nations and other international markets (Schumacher 1984).

In order to determine adequate premium levels to meet exposures presented by a particular shipowner, the Syndicate typically reviews:

1. The background of executive and operating officers of the fleet;
2. The age, classification status, and condition of fleet ships;
3. The operations, training, and origin of fleet crews;
4. The trading patterns of the company;
5. Cargos carried;
6. The distribution and frequency of the routes used;
7. The maintenance and repair policies of the company (Schumacher 1984).

Pollution Liability Insurance

Prior to the 1970s, the insurance industry provided comprehensive general liability policies for U.S. businesses which covered a broad range of commercial liability due to accidental personal injury or property damage. In the early 1970s, certain pollution-related liabilities were specifically excluded as the nature and cost of pollution incidents and associated liabilities became more evident. Some insurers developed separate policies, specifically to cover pollution risks, that imposed dollar limits per incident (General Accounting Office [GAO] 1987).

By the mid-1980s, however, few insurance companies were offering pollution insurance due to the uncertainties regarding potentially enormous claim payments, "unfavorable" legal trends involving liability standards and insurance coverage, and the broad liability established by federal and state environmental laws. The insurance industry has maintained that the basic concerns of underwriting a risk -- the process of identifying and evaluating risks and setting the premium to be charged for risks accepted by the insurer -- cannot be satisfied when assessing pollution risks, thereby making them uninsurable (GAO 1987).

Commercial pollution insurance is generally unavailable and when it is, coverage is limited and expensive and selectively provided to clients that carry coverage by the insurer for other risks. One option to traditional insurance coverage is participant-owned and operated risk pools that cover catastrophic liability losses. It is unclear from the literature examined in this research how effective risk pools have been in meeting the insurance needs of the oil transportation industry. Another option for pollution liability coverage, when available, is reinsurance. Reinsurers are companies (or governments) that assume a portion of the potential liability risks that the insurance companies underwrite in exchange for a share of the premium (GAO 1987).

In the absence of available and affordable liability coverage, many oil shippers operate without it once they have demonstrated financial capability to the limits of liability set forth in applicable federal laws. These financial requirements ensure that operators have assets on hand to cover the pollution liabilities faced. In essence, these shippers are self-insured.

Ocean maritime insurance differs from property and casualty insurance in that there are no regulations regarding the filing of rates and policy forms with state insurance authorities (partly due to great variations in commodities, vessels, distances, etc.) (Picone 1989). Liability insurance premiums are calculated according to the type of vessel and the degree of risk of different classes of vessels. Oil carriers are rated at the high risk end of the scale. In spite of these differential ratings, owners with poor loss records have generally paid only slightly higher premiums (Schenker 1981).

In light of California's Proposition 103 rollback of automobile insurance rates, the U.S. marine insurance market is concerned about the political climate for retaining its exemption from rate and form regulations. The U.S. market is very slow relative to the international insurance market, primarily due to the unpredictable future of U.S. trade. All quotas on imports, for instance, impact the business of cargo underwriters (Picone 1989).

The potential for huge catastrophic payouts has probably had the greatest impact on the market. According to John Hickey, President, American Hull Insurance Syndicate, "There is no way that we can continue to pay tomorrow's catastrophe claims with today's inadequate premiums." The hull syndicate had a profitable year in 1988 because they were selective and "lucky," and because they had no major casualties for two years. "We shall continually strive to write marine business the only way we know how -- profitably. We are a unique organization with a long tradition and we are perfectly positioned to pick up the pieces when the current market explodes -- which it will," said Hickey (Picone 1989).

Although the Exxon Valdez is a relatively new tanker, the average age of most ships, according to Lloyd's Register, is over 10 years old, and the high costs of shipbuilding will preclude any rapid modernization of the fleet. Due to the poor economic condition of the shipping industry, according to Walter Kramer, Vice President of the American Institute of Marine Underwriters, the emphasis "is on cost-cutting measures and economies of scale." Kramer maintains that the aging fleet and smaller crews on more automated ships will contribute to more accidents in the future. The research being conducted for the paper, "The Impact of Fatigue and Other Factors on Human Performance and How They Relate to Maritime Accidents," also supports this. Higher underwriting losses will then lead to higher insurance rates, compounding problems in the industry. Ship owners and insurers need to work together to reduce the chances of accidents, and those "practicing sound hull loss prevention techniques should receive credit for their efforts" (Picone 1989).

OIL SPILL LIABILITY AND COMPENSATION

International Conventions

The myriad international, national and state laws, statutes, and funds that address pollution from oil spills has been widely characterized as a "patchwork quilt" of overlaying standards and liability limits. The following is a discussion of the various acts, treaties, and funds potentially applicable to U.S. oil transportation interests or to accidents in U.S. waters.

The Convention on Civil Liability for Oil Pollution Damage (1969) and Convention on the Establishment of an International Fund for Compensation of Oil Pollution Damage (1971) provide a means of sharing oil pollution costs among countries that are parties to the Conventions. The two international oil spill treaties establish maximum liability amounts of oil shippers (Smets 1983). The 1984 Civil Liability Convention (CLC) establishes a financial responsibility regime where each party is required to ensure that ships in its ownership have insurance or other financial security to cover the owners' liability under the Convention up to the prescribed limits.

The 1984 CLC and FUND Protocols implement the provisions of the above conventions. They allow member nations a way to enforce judgments that affect foreign vessels and help ensure that the assets of the owner or insurer liable for oil pollution will be available to meet damage claims. The U.S. has failed to ratify the 1984 Protocols. Opponents maintain that the Protocols would provide coverage beyond current federal and state laws under only a limited set of circumstances and, in some cases, they would preempt state liability laws. Supporters argue that the Protocols offer a way to share the costs of U.S. oil spills worldwide by allowing the U.S. access to the international oil spill compensation fund and would also allow the U.S. to influence international maritime negotiations. Amendments to the Protocols, they claim, could be added in the future to increase liability limits (U.S. Senate 1989).

The Bush Administration favors adoption of the 1984 Protocols but opposes the preemption of state liability laws beyond the extent necessary to implement the Protocols. Secretary of Transportation Skinner has testified that any claims for damages in excess of the owner's

limit of liability could be brought directly to the international fund, which, according to Skinner, has an excellent record of payment (on average, eight months) (U.S. Senate 1989).

The French government ratified the 1984 Protocols within two months of their introduction, but unfortunately six years after the Amoco Cadiz accident. Eleven years later, the lawsuits are being settled for a fraction of what France spent dealing with the spill (U.S. Senate 1989).

Federal Laws

The Federal Water Pollution Control Act, 1970, as amended by The Clean Water Act, requires owners to file a certificate of financial responsibility for each tank ship owned that demonstrates financial capability to the extent of the owner's minimum cleanup liability.

The Clean Water Act of 1977 provides liability of up to \$50 million for the actual costs incurred by federal and state governments to remove the oil and restore natural resources and the environment. Section 311 provides that the vessel owner is liable to the U.S. Government at \$150 per gross ton unless the spill is the result of "willful negligence or willful misconduct within the privity and knowledge of the owner," then the liability of the spiller is unlimited. At \$150/gross ton, the liability limit for the Exxon Valdez is approximately \$14 million. The 311 (k) revolving fund is maintained by federal appropriations at a targeted balance of \$35 million and is administered by the U.S. Coast Guard. Only one-half of the \$143 million from the fund spent since 1971 has been recovered from responsible parties. The fund currently stands at only \$2 million (House of Representatives 1989a).

The Federal Limited Liability Act allows ship owners to petition to limit liability for damages to the value of the vessel and freight on board following the accident, thus disallowing liability for any damages. This legislation has been enforced inconsistently in past oil spill litigation.

The Offshore Oil Pollution Compensation Fund is a renewable fund of up to \$200 million administered by the Secretary of Transportation to cover oil removal costs and damages to fishing, recreation, ecosystems, and related activities. These funds, as well as those under Section 311 of The Clean Water Act and the following two acts, would all be combined into one large oil spill compensation fund under the pending federal legislation.

Other federal laws that may be applicable in major oil spills are the Outer Continental Shelf Lands Act Amendments (OCS) of 1978 and the Deep Water Ports Act of 1974.

State Liability Systems

The Trans-Alaska Pipeline (TAP) Fund was established in 1973 by the Trans-Alaska Pipeline Authorization Act to pay damage claims, including cleanup costs resulting from oil spills from vessels carrying oil to ports from the pipeline system. The Fund is liable without regard to fault for damages in excess of \$14 million but not more than \$100 million per incident. To date, the Fund has never paid a claim. Exxon has agreed to administer all claims it receives and may submit claims to the Fund before the two-year application deadline in March of 1991. Since the act exempts the Fund from liability arising from a claimant's negligence, Fund officials intend to contest any claims filed by Exxon (GAO 1989).

Alaska Statute 46.03.780 Liability for Restoration provides that a spiller is liable to the state for damages related to the sum of money required to "restock," "replenish," and "restore" the environment to its previous condition. Damages are recovered by the State Attorney General on behalf of the citizens of Alaska (Graham 1989).

Alaska Statute 46.03.822 Strict Liability for the Discharge of Hazardous Substances provides that the "person owning or having control over" a polluting vessel may be relieved of strict liability only if the spill is due to act of war, negligence of a third party, negligence on the part of the state of Alaska or the United States, or an Act of God (Graham 1989).

Alaska Statute 46.03.758 Civil Penalties for Discharges of Oil, enacted in 1977, establishes "substantial civil penalties" in order to provide a "meaningful incentive for the safe handling of oil" and to insure compensation for the state. The regulations establish a range of penalties, depending upon "toxicity, degradability, and dispersal characteristics" of the spilled oil and the "sensitivity and productivity of the receiving environment." Alaska Statute 46.03.758(b)(2) provides that penalties can be multiplied by a factor of five if the spill is due to an intentional or grossly negligent act or if the spiller did not make reasonable attempts to contain and clean up the spill (Graham 1989).

Variations in the maximum penalty amounts are designed to accommodate recovery needs in the most sensitive environments:

1. Maximum \$10.00 per gallon for oil entering most freshwater environments;
2. Maximum \$2.50 per gallon for oil entering most confined saltwater environments;
3. Maximum \$1.00 per gallon for unconfined saltwater or other environments without significant aquatic resources (Graham 1989).

Other features of the Civil Penalty statute include:

1. A vicarious liability provision that holds owners liable for actions of their contractors. Intended to provide a further incentive for safe operations, this feature also increases the likelihood the state will be able to recover for damages to the environment;
2. A liability limit of \$100 million was added under strong pressure from the oil industry, which argued that the industry needed advance knowledge of its maximum potential exposure;
3. A deduction for the gallons cleaned up from penalties owed by the spiller, in order to provide an incentive to clean up as much spilled oil as possible;
4. Reductions in penalties for mitigating circumstances, when events surrounding a spill would make full penalties inappropriate;
5. Exemption of spills less than 18,000 gallons, in order to provide some protection for small oil handlers (Graham 1989).

A spiller may be liable under the Civil Penalty statute, as well as other state statutes, but recovery will generally be sought under one statute or the courts may interpret the action as a double recovery. The state may allege liability under all applicable state and federal statutes and then pursue the course that provides the maximum potential recovery. Once a case is filed, however, it is usually settled out of court for a lump sum amount. Otherwise, if left to the courts, a determination would be made as to which is the controlling statute.

A detailed investigation of Alaska's civil penalty scheme for oil spill liability and compensation was completed in January of 1989 at the University of Washington's Institute for Marine Studies (Graham 1989). The investigation was documented as a Master's Thesis and includes an evaluation of the existing system. The report concludes that Alaska's civil penalty approach is viable. However, it also identifies inconsistencies and shortcomings, and offers sound recommendations to make Alaska's liability and compensation system more effective. This report is attached to this paper as an appendix. Review of this study's recommendations by the Alaska Oil Spill Commission (AOSC) and the state legislature is an important recommendation of this report.

PROBLEM STATEMENT

In the aftermath of the Exxon Valdez accident, the Alyeska Pipeline Service Company -- the industry consortium that operates the Trans-Alaska Pipelines on behalf of seven oil companies that own the facilities -- has been soundly criticized for allegedly allowing the oil companies to save money by curtailing preparations for a large-scale oil spill throughout the 1980s. In addition to the problems caused by economic and competitive pressures, automation, safety violations, and a poor preparedness and response evidently also contributed to the disaster (this is also substantiated by research completed for the paper, "The Impact of Fatigue and Other Factors on Human Performance and How They Relate to Maritime Accidents").

1. Economic pressures: the competitive pressures in the oil and oil transportation industry, particularly with respect to competing with foreign carriers, most of which rely on lower standards and have less technology to

finance. Oil transporters are under constant pressure to move fast and stay on schedule. The Exxon Valdez was five days behind schedule when it ran aground. The Exxon Valdez was also on the outer fringes of the Coast Guard Vessel Traffic System (VTS) when the accident occurred. Federal cutbacks are primarily responsible for the failure to extend the VTS to the outer rim of Prince William Sound. The cost of extending the system, according to the Coast Guard, is estimated at \$20 million (House of Representatives 1989a). Expansion of VTS is included in the pending federal legislation.

In 1981, a 20-member emergency team responsible for 24-hour response to oil spills in Valdez Harbor and Prince William Sound was disbanded by Alyeska to cut costs. Alyeska officials argued that such a large-scale spill as the Valdez was highly unlikely (New York Times). Also in 1981, Alyeska turned down an offer from the city of Valdez to stockpile cleanup equipment and materials. Alyeska personnel advised city officials that warehousing booms, dispersants, and other types of cleanup resources sufficient to attack a large-scale spill would be "a tremendous waste of city money" (House of Representatives 1989a). The pending legislation will reinstate national emergency strike teams and require contingency plans for major spills and adequate equipment for response.

2. Automation: as discussed in this paper, more automated ships and smaller crews may lead to an increase in accidents and resulting oil spills. When the Valdez ran aground, the systems that automatically power and steer the ship were on, a violation in that part of the Sound. These systems may have contributed to both the grounding and the large volume of oil released.
3. Safety violations: violations of the Valdez master pilot involving alcohol have been the most publicized, but a number of other violations connected to the accident apparently took place: the Valdez didn't notify the Coast Guard, as required, that it was leaving the shipping lanes to avoid ice floes; and federal

violations involving improper manning for the waters, including control of the ship by third mate (not certified as a pilot) and the failure of the Master to be on the bridge. The look-out was out of position, helping the local pilot depart the ship just minutes before the grounding.

4. Inadequate response and preparedness: As mentioned above, there were inadequate resources in Valdez to respond to an accident of this magnitude. Alyeska's contingency plan included a scenario for a catastrophic incident and noted that the response would be inadequate. After the Valdez spill, it took hours for emergency work to begin. Alyeska's only cleanup barge was out of service, an absorbent boom was buried under snow, and only 45 drums of dispersant were on hand -- enough to dissipate 3% of the spill (Anchorage Daily News November 3, 1989).

Our investigation did not find any evidence that insurance adversely affected the response to this incident. This question came to light when the response to a recent (November, 1989) Alaska grounding was delayed until the hull underwriter could determine whether or not there could be any salvage value. Possible responses involved burning, sinking, or blowing up the ship. These actions were not allowed without the approval of the underwriter.

POSSIBLE SOLUTIONS

The advantages and disadvantages of a number of alternatives to maximizing safety and preparedness through insurance and liability mechanisms are discussed below.

Unlimited Liability

The threat of unlimited liability, it is argued, encourages a higher standard of care in the oil industry and prompts prevention-related activities in both the public and private sectors. Supporters of unlimited liability essentially support the rights of states to establish liability, in order to go beyond federal or international minimums as necessary to protect the health and welfare of their people and environments. Opponents of unlimited liability maintain

that this alternative will result in commercial insurance being unavailable and the oil industry taking its business away from states with unlimited liability laws. (Since nearly one quarter of the U.S. source of petroleum comes from Alaska, this seems unlikely.) Most states and environmental groups argue that states should nonetheless have the right to protect their tourist and fishing industries from oil spills at the expense of a certain amount of business activity (United States Senate 1989).

Advantages:

1. Strongest position in support of "the spiller/polluter pays" principle;
2. Encourages a higher standard of care;
3. Preserves state's rights.

Disadvantages:

1. No insurer will provide unlimited coverage;
2. Oil industry may avoid states with unfavorable limits;
3. Spiller could "hide" assets, declare bankruptcy, and "walk away" from spill.

Limited Liability

In the wake of the Exxon Valdez disaster, future liability limits will face pressures to relate more realistically to the full range of oil pollution damages -- not just for cleanup, but for damages to property, natural resources, losses in earnings, and loss of use of real or personal property. Documentation of a carrier's financial capability levels may also have to follow suit (Schenker 1981). If Congress sets liability limits in the proposed federal compensation and liability legislation, limits could be driven by the financial capability of each company and by its commitment to state-of-the-art technology as a safety incentive (i.e., lower limits available to shippers that commit to modern cleanup equipment, modern monitoring systems, advanced ship designs, etc.). (United States Senate 1989). The recommendations of the investigative report detailing Alaska's civil penalty scheme for oil spills makes similar recommendations through the elimination of certain provisions, including the \$100 million ceiling on penalties. The pending federal legislation suggests lower limits for safer transfer points, such as deepwater ports.

Advantages:

1. High, but fair liability limits might stimulate U.S. marine insurance market;
2. Parties responsible for spills will at least pay something, both into reserve fund and for damages up to limits;

Disadvantages:

1. Probably won't cover all damages in catastrophic accidents;
2. Unless the limits of liability are very high (and reflective of full range of costs), the "cost of doing business mentality" toward managing oil (spills are inevitable) will prevail (United States Senate 1989).

User's Fees

In addition to setting minimum liability limits, toughening standards, and lifting all liability limits in some cases, possibly the most important feature of proposed federal liability and compensation legislation is the establishment of a national fund for cleanup and recovery costs that exceed liability limits. The fund would be developed through a 5-cent per barrel tax on the oil industry, the rationale being that oil companies should bear a responsibility for cleaning up and restoring the environment when damages exceed the responsible party's limit of liability (United States Senate 1989). According to Atlantic Richfield Company testimony before the Senate Subcommittee, merging the federal funds created by the TAPS Act, OCS Act, and Deep Water Ports Act would immediately establish a reserve fund in excess of \$400 million (United States Senate 1989). This is included in the pending legislation. This legislation also includes user fees for the expansion of the VTS.

Advantages:

1. Prevents need for each state to establish its own fund (more economical and efficient);
2. Allows oil shippers to pay into one centralized oil fund instead of individual funds of each state;
3. Retains state liability laws;

4. Can be established together with adoption of 1984 Protocols to cover incidents where damages exceed Convention liability limits;
5. When fund builds up, part of it can be dedicated to improving safety measures, training programs, etc.

Disadvantages:

1. Does nothing to eliminate the "patchwork quilt" of regulations.

National Contingent Insurance

As was the case with hazard insurance for floods and earthquakes prior to the development of national and federally-supported insurance programs, commercial pollution insurance, when available, has become increasingly unaffordable. Nationally, we are all dependent on the Alaskan oil business and concern over the frequency and magnitude of the impacts of oil spills has become a strong national issue. In addition, its resources and natural beauty make Alaska a "national treasure" and a source of national pride. Proponents of national oil pollution insurance make these and other points in support of arguments for a national program.

Advantages:

1. Mitigation and contingency planning can be required as a condition of participation;
2. Incentives relating to the cost of coverage can be employed to prompt oil shippers to operate in as safe a manner as possible.

Disadvantages:

1. Oil shippers may become more complacent or careless with insurance protection to fall back on;
2. Many are not convinced that the oil industry can be relied upon to protect the environment.

Deepwater Ports

Government and industry could investigate the possible development of new offshore deepwater ports, such as the Louisiana Offshore Oil Port (LOOPs), where spills may be less likely to occur and easier to clean up than those closer to shore. The open waters around offshore ports are also more amenable to the use of "non-mechanical cleanup means," such as dispersants. Oil is transported between port and shore via underground pipelines.

Advantages:

1. Eliminates threats of groundings and narrow channels;
2. Spills would affect less sensitive environments;
3. LOOPs operates wide "safety zone" around port and 24-hour traffic control and communications.
4. Pending legislation calls for lower liability limits for vessels utilizing deepwater ports.

Disadvantages:

1. LOOPs has been losing money and has not proven to be an economical alternative for potential port users or investors (United States Senate 1989).
2. Exposure to harsher environment could potentially limit the number of days facilities could be used.

RECOMMENDATIONS

1. The AOSC and the state legislature should review the analysis of the civil penalty scheme for oil spill liability and compensation in Alaska (Graham 1989) and determine the appropriateness of the studies' recommendations for adoption and implementation.
2. The development of a user's tax and national oil spill compensation fund offers a number of important advantages over the "patchwork" liability and compensation system currently in place, and deserves further examination in the near term. These,

and many useful mitigation measures, are incorporated into the pending federal legislation. Alaska should strongly support this legislation package.

3. Localized liability and penalty schemes should be investigated on a port-by-port basis. These schemes should investigate the potential of providing access to terminals contingent not only upon certain levels of liability or financial capability, but also upon certain standards for vessel manning, training, licensing, and equipment.
4. Offshore deepwater ports -- and their obvious advantages in limiting oil spill damages -- may provide the best long-term solution to the problem, provided that economic and environmental problems can be overcome.

Any of these initiatives should be pursued in the context of a complementary liability and compensation system that: (1) defines the relationship with other international, federal, and state laws; (2) preserves state liability laws; (3) clearly defines the liability of each shipowner and the scope of claims that can be made against the responsible party; (4) retains the "polluter pays" principle in pollution liability; and (5) serves to bring under a single umbrella all aspects of oil spill liability and compensation to ensure that all claimants are compensated (United States Senate 1989). The pending federal legislation accomplishes these goals and should be promoted. Reviewing the recommendations of Alaska's civil penalty scheme for oil spills will also accomplish these goals. Developing particular schemes for individual ports can address the varying degree of risk due to frequency of vessels and localized conditions. This may also provide the only mechanism that ensures that a certain level of safety is maintained by visiting vessels, regardless of their nation of origin or registry.

The national flood and earthquake insurance programs, as models, can serve to guide those involved in the development of a similar program for oil spill pollution hazards. Loss prevention should become a strong factor in the development of insurance rates and costs. Repetitive offenders might find it difficult to obtain protection at any cost (Schenker 1981)

or find insurance too expensive to stay in business. Those ship owners and operators working to reduce the likelihood of accidents should get credit for doing so.

Lower liability limits could be made available only to those companies that can demonstrate financial responsibility, good safety records, and a commitment to state-of-the-art technology. Inadequate training procedures, inadequate charts and guiding systems, and inadequate maintenance and repair policies are examples of reasons to deny lower liability limits (United States Senate 1989).

The Exxon Valdez disaster has revealed the need for more mitigation and preparedness planning throughout the system (ship owners, pipeline operators, local, state, and federal governments). Contingency response plans should consider the extraordinary resource demands placed on the response system in major oil spill accidents, and then improve plans through regular drills and exercises. Following the grounding of the Arco Anchorage off Port Angeles in 1985, Arco, the Coast Guard, and the Washington Department of Ecology co-managed a successful cleanup effort that took four months. Coordinators credited a joint response exercise conducted a year earlier with creating a familiarity that led to a smooth working relationship in the actual event (Anchorage Daily News May 7, 1989).

The best opportunities to implement mitigation measures generally follow the occurrence of a disaster, when the hazard is still fresh in memories and there is usually a mandate to improve or change the system. The state of Alaska, Alyeska Pipeline Service Company, and Exxon have all taken proactive steps to mitigate the impacts of future spills. Alyeska has acquired several new, large oil skimming vessels to escort tankers from the Valdez Terminal out of Prince William Sound. Alyeska now plans to stockpile cleanup equipment and supplies and is increasing tariffs approximately \$3 per barrel in order to finance pipeline corrosion repairs, oil spill prevention and improved spill response, and legal fees from the Valdez spill. The state is raising severance taxes to create a \$50 million emergency relief fund for oil spill cleanups (Anchorage Daily News November 2, 1989) and the AOSC has recommended a number of new safety measures, including giving authority to the State Harbor Authority to close down ports if conditions are unsafe (Anchorage

Daily News November 12, 1989). The glaring shortfalls in response and preparedness systems may, in the long run, prove to be more positive if steps are undertaken that prevent future such occurrences. It is important to institutionalize these measures now so that the system does not become lax in between oil spills.

Although the costs of monitoring systems, training programs, and other prevention and response measures may seem relatively minor compared to oil profits, cost/benefit analyses of mitigation opportunities must demonstrate that mitigation and preparedness are in the best financial interests of the oil industry as well. A public/private partnership is likely to produce the best mitigation results.

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with Roger Vielvoye from London

Focus on oil spills

Oil spills like the Exxon Valdez incident off Alaska, Khark 5 off Morocco, and American Trader off California are concentrating the minds of oil companies on environmental and public relations repercussions from their world tanker operations.

One of the biggest oil transporters, Royal Dutch/Shell Group, has moved to ensure that tankers on charter to the company are adequately insured against the potentially crippling costs of cleaning up a major spill in a sensitive area and meeting any liabilities that might emerge from the incident.

Shell has a global interest in pollution-free tanker operations. On any day, the company has 50-60 of its own vessels on the high seas, 40 tankers on time charter, and another 40 on charter for single voyages.

Beefed up coverage

Shell International Marine Ltd., London, has told owners of all tankers carrying crude or products for the company an additional pollution insurance clause has been inserted into contracts for voyage and time charters. It will take effect immediately. In the future, the clause will become one of the standard terms for obtaining business from Shell.

Tanker owners are required to show they have oil pollution insurance coverage of \$700 million that will remain in place during the time the vessel is working for Shell.

The international Group of P&I (protection and indemnity) Clubs, which cover owners for risks other than damage to tanker hulls, increased the oil pollution coverage to \$500 million from \$400 million effective Feb. 20.

At the same time, the clubs offered members an additional voluntary portion of oil pollution coverage of \$200 million to push total coverage to \$700 million.

In a letter to tanker owners, Shell said responsible owners would want to acquire this additional coverage. And it reminded owners that recent events had shown that costs of pollution prevention/cleanup can on occasion substantially exceed the coverage presently available.

Oil pollution is also very much on the mind of the Royal Dutch/Shell Group's British affiliate, Shell U.K. Ltd.

The company has the dubious distinction of being the subject of the first major prosecution by Britain's newly formed National Rivers Authority.

River Mersey spill

The case arose over Shell's spill of 157 metric tons of very heavy Venezuelan crude into the River Mersey in Northwest England from a pipeline linking an import terminal to the 262,000 b/d refinery at Stanlow, Cheshire.

Cleaning up the mess in the Mersey estuary cost Shell U.K. £1.4 million (\$2.38 million). The court case cost it another £1 million (\$1.7 million) in fines, a substantial penalty by U.K. standards.

Imposing the fine, the judge criticized Shell for flushing a further 7 tons of crude out of the pipeline after the initial leak, against the advice of all local authorities.

The judge said the fine would have been higher but for Shell's good record on conservation and its support of the arts and other worthwhile causes.

FERC to keep crediting plan for interstates

The Federal Energy Regulatory Commission has declined to change its cross crediting mechanism in its open access transportation program for U.S. interstate gas pipelines.

In Order 500-I, FERC denied requests for substantial changes in its final rule on the program.

At the mandate of the District of Columbia Circuit Court of Appeals, in Order 500-H the commission reaffirmed cross crediting but moved the take or pay cost recovery deadline from Mar. 31, 1989, to Dec. 31, 1990, and set a sunset date for the take or pay crediting mechanism: Dec. 31, 1990, or the date on which a pipeline accepts a gas inventory charge authorization, whichever occurs first.

Pipelines sought a rehearing, and in Order 500-I FERC agreed to change to 60 days from 30 days the notice period before which pipelines may apply take or pay credits to gas they must take.

"No" to other changes

FERC denied requests for other changes, saying Order 500 has been instrumental in encouraging settlements that are removing take or pay problems. It said pipelines' take or pay exposure has decreased from \$10.7 billion in 1986 to \$2.4 billion as of Mar. 31, 1989.

It again refused to exercise its authority under Section 5 of the Natural Gas Act to change or abrogate problem gas contracts, as some pipelines have urged. It again maintained it lacks authority to modify contracts for the sale of nonjurisdictional gas.

The Interstate Natural Gas Association of America said FERC's action "simply repeats the justifications it has previously made for failing to provide take or pay relief and takes wholly unjustified credit for settlements that have taken place in spite of, rather than because of, its earlier actions."

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LEGISLATIVE HISTORY OF AMENDMENT
TO AS 46.04.040
PROOF OF FINANCIAL RESPONSIBILITY
(HB 567: 1990)

Volume II: Correspondence and Drafts from the Department of Law's File No. 883-90-0183 Assigned to Assistant Attorney General John McDonagh re HB 567

1. Memorandum from Shari Kochman, legislative Staff Assistant to Assistant Attorney General Arthur H. Peterson regarding opening of new file with handwritten notations by John McDonagh (2/13/90).
2. Department of Law Drafts of HB 567, some with handwritten editorial notes (2/15/90).
3. Memorandum from Commissioner Lennie Gorsuch, Department of Natural Resources to Denby Lloyd, Special Staff Assistant, Office of the Governor providing comments and recommended changes to oil spill bills; includes handwritten notes (2/16/90).
4. Handwritten note on Office of the Governor letterhead listing major remaining policy questions on the oil spill legislation (2/17/90).
5. Handwritten note to Assistant Attorney General Jeff Bush providing instructions as to procedures for making changes on bill draft and enclosing a sectional analysis of the contingency plan/financial responsibility proposed legislation (2/17/90).
6. Department of Law Drafts of HB 567 with handwritten editorial notes (2/20/90).
7. Memorandum from Attorney General Douglas B. Baily to Governor Steve Cowper enclosing proposed oil spill legislation implementing the Alaska Oil Spill Commission's recommendations in its Executive Summary report issued in January 1990, enclosing draft transmittal letter to the legislature and a sectional analysis for each bill (2/20/90).

