

**ORAL ARGUMENT – 10/01/03**  
**02-0566**  
**DIAMOND SHAMROCK V. HALL**

BOYCE: The court is being called upon here to reconcile widely divergent views about how a case such as this should be tried and submitted. The record here shows disagreement with respect to whether the gross negligence predicate for awarding punitive damages has been satisfied. And also how the exemplary damages caps apply in an employee death case brought under the worker's compensation statute.

Based on a 10-2 jury verdict finding that Mr. Hall's employer was grossly negligent, the TC signed a judgment awarding exemplary damages of \$200,000, which of course was far less than the \$42.5 million found by the jury.

The CA reversed the TC's judgment and remanded this case for a new trial with directions to admit evidence and obtain jury findings on actual damages. We submit that this remand is in contravention of this court's teaching in *Wright v. Gifford Hill*.

We believe that the CA erred first because as the dissenting justice recognized, there is no evidence to support a gross negligence finding. Apart from legal sufficiency, the CA erred in reversing the TC's correct application of the \$200,000 maximum cap mandated by Ch. 41's unambiguous terms under the circumstances of this case.

O'NEILL: Can you tell me what sort of evidence you think would constitute a scintilla of evidence to support gross negligence under the fact scenario here? What type of evidence would you be looking for to support an award?

BOYCE: I think you have to focus on the risk at issue. And I think that's a significant area where the parties have disagreement.

O'NEILL: Let's say you define the risk as liquid in the discharge line. If that's the definition of the risk, then what sort of evidence do you think is necessary to get you to gross negligence to the subjective element?

BOYCE: I think if there had been evidence of prior accumulations in the discharge side, then that may be a circumstance that gets you closer or gets you over the hurdle with respect to gross negligence. But I want to zero in because on this record it is undisputed that there had not been prior accumulations on the discharge side.

O'NEILL: Is there any other evidence - what if a key safety component has failed or you know it's failed?

BOYCE: I think what the court may be referring to for example would be the check valve evidence. And I would want to make the point that the exact nature of the issue with respect to the check valve was not entirely clear. There is some evidence of some kind of issue with the check valve, but it's not entirely clear.

O'NEILL: I understand. You dispute the quality of that evidence. But what if - let's just use the hypothetical, and not this case, what if there was evidence that - let's say there was a memo that the check valve was broken, and it was not fixed. Would that be some evidence to you to support gross negligence?

BOYCE: I think if there were a context that there were an appreciation that liquids could get in on a discharge side, and that would have backdropped against which the memo that you are hypothesizing were entered, then that might be a different case. But that's not our case here. And I also don't want to lose sight of a point with respect to the standard of review. Because it would be our position under this court's decision from JFC that asking whether there is a scintilla is not consistent with the clear and convincing evidence standard that's been required. I think it's more of a standard of could a reasonable juror conclude that clear and convincing evidence is present. I do want to note that position of ours.

O'NEILL: But presuming that the existence of a safety valve itself indicates that it is foreseeable there is some risk of liquid in the discharge line or else there wouldn't be a safety valve, would some knowledge that a valve is broken or a failure of a safety check get you there?

BOYCE: I think that it gets you closer to there. But I think it's helpful to answer your question by way of an analogy. Because what I understand your question to be is, should further steps have been taken over and beyond what was already done. And I think that takes us to a circumstance that's similar to the Ung case, for example. Where the contention was that additional, better precautions should have been taken to protect the roadworker from the risk.

O'NEILL: I'm not talking about failure to train employees. I'm not talking about better policies. I'm not talking about actual knowledge of a failed safety system in what's known to be a \_\_\_\_\_ environment.

BOYCE: I think depending on the circumstances that could be evidence of gross negligence. But I focused on the circumstances here and bring it back to what is the undisputed fact here. That there had not been liquid accumulation before on the discharge side of this compressor system. The folks who are on the ground there did not anticipate it, had not encountered it in the course of hundreds or perhaps thousands of startups. And so under those circumstances in light of that undisputed fact, I think evidence even if you grant every inference to the plaintiff in terms of the check valve report and there were some malfunction in some way, I still don't think that gets them to the gross negligence threshold. And part of your question, I think focuses on where the CA went awry in its analysis. Because it comes back to how are we going to define the risk at issue here? Is the risk at issue working around petro chemicals in a refinery? Is the risk defined as any means by

which liquids can get into a compressor? Or is the risk defined as the risk that liquids would accumulate in a place where they hadn't before on the discharge side and get in...

SCHNEIDER: Was there any evidence in the record at any place of what the likelihood was that or the chances were that the liquids would actually enter the compressor?

BOYCE: In terms of percentages, odds or that sort of thing. No. I don't believe that there was evidence. What the evidence did show at least with respect to the discharge side is that it hadn't accumulated there before and that was not the anticipated point of entry. There had been anticipated possibility of entry of liquids from the suction side, and that was addressed through the various safeguards that were imposed after the prior incidents involving the suction line. But I think this brings us back to the Ung case and also the Andrade case, that responding to the prior incidents and introducing protections with respect to the suction side, I think is perfect appropriate. But I don't think you can take that and say that because you didn't anticipate it on the discharge side and you didn't go above and beyond a check valve that that is gross negligence anymore than...

OWEN: How many times before had the hydrocracker unit flooded the RLE compressor system with liquids?

BOYCE: I don't know that there was specific testimony as to the number of times.

OWEN: Had it ever happened before?

BOYCE: I think that the evidence was that this was an unusual additional amount of liquids that had been carried over from the hydrocracker unit into the RLE compressor unit.

OWEN: Had there ever been previous times where that had been shut downs and startups after that had happened?

BOYCE: I don't know that that is specifically reflected in the - that this precise scenario had come about before. I think there was some anticipation that liquids could be carried over from the hydrocracker unit to the compressor unit in terms of being part of the vapor. But in terms of the additional quantity that came over the day of this incident, I don't think this precise chain of circumstances had previously been accounted.

There was a recognized risk in terms of - it's agreed. Everybody wants to keep liquids out of the compressors. But in terms of this specific dynamic, I don't believe that this had happened before and certainly even granting that there may be circumstances where liquids come over in some quantity from the hydrocracker unit to the compressor unit, again it's undisputed on this record that in terms of an accumulation in the discharge side, that had not been an experience before.

OWEN: Why was the hydrocracker unit - it sounds from the respondent's brief that

this is an intentional failure, that it was a conscious decision to cause the hydrocracker unit to flood the RL system with liquids. Is that true or not?

BOYCE: I think where the plaintiffs are drawing that from is evidence that there was a request on behalf of one of the hydrocracker operators to divert liquids away from the compressor unit, RLE unit, and that request had been made to that and permission was denied. So I guess that's the notion that it was intentionally sending it over there. But I don't want to lose sight of the fact that the compressor unit - the design of the compressor unit it was contemplated that liquids could be present under some circumstances. That's why you have a low stage suction drum. And that's why you have an accumulator pot so that the liquids would gather there and be taken away and not go further on into the compressor.

But in terms of a contention that somebody had a desire to cause an explosion...

OWEN: No. That's not what I meant. Why weren't the liquids diverted this way this time? You said that wasn't a normal procedure, why was it done that way this time?

BOYCE: I'm not sure that it's clear beyond the statement in the record that permission was requested and denied. Ultimately, I think at about 3:30 or so on the day of the incident, the compressor operators took it upon themselves to close off the valve and stop the carryover. But prior to that time it had continued, and that may have been a function of the fact that there was some evidence that the hydrocracker unit may have been running at a higher temperature than normal creating more liquid than normal under normal operations.

O'NEILL: What's the purpose of the check valve?

BOYCE: To prevent back flow. One of the aspects that it addresses is back flow that could cause the machinery to be damaged in the event of a shutdown or where it's not operating. There was some conflicting testimony as to the propriety of using a check valve as a means of preventing liquid from going backwards as opposed to vapors. But the bottom line is that it was there as part of a redundant series of protections. It was the check valve. It was a block valve beyond that. And then you've got the low stage suction drum that is there to capture liquids that may come over from the hydrocracker unit.

O'NEILL: If there are safety features designed to prevent this from happening, then it would be foreseeable that this type thing could happen?

BOYCE: I think the best analysis of it is in the dissenting Justice's opinion when we talk in terms of foreseeability and that sort of thing. I'm not going to stand here and tell you that this is best practices or anything. But I think I would tell you that at most what we're talking about here is evidence of negligence. And that the additional threshold as required to crossover into gross negligence is not satisfied here. And I think that was the point of the dissent that they had realized

that the subjective prong of the conscious indifference is not here particularly when nobody knew that the liquids had accumulated on that day and it hadn't happened before. And again I come back to this notion...

PHILLIPS: There is some evidence of conscious indifference in general, but at least some it from Shamrock management, the health and safety of employees is there not?

BOYCE: Without tying it specifically to a particular risk, I'm not sure how to answer your question.

PHILLIPS: Not tying it to a risk, just management sitting there saying we hope all our workers will be safe and we're doing everything we can to insure that. There is some evidence of a failure in that regard is there not?

BOYCE: I think there is evidence of negligence in this record. Now is the contention going to be that that goes beyond gross negligence? To me that sounds very much like a contention that working in a petro chemical refinery is an inherently hazardous undertaking and, therefore, anything that goes wrong in the course of that must be conscious indifference. It must be gross negligence because everyone knows if something goes wrong in a refinery bad things may well happen. I don't think that's the standard. I think that departs from the two-prong objective and subjective tests that have been set out. And again, I go back to the Ung case as an example where the concept of inherent hazard was not sufficient without being able to satisfy the specific prongs to establish gross negligence. You could just as well say it's inherently hazardous to work next to busy traffic on a freeway and not have a concrete retaining wall and a flagman and a buffer lane there to protect the workers from anything that might travel over from the lanes where the traffic \_\_\_\_\_.

OWEN: I have a question in general that's really not addressed by the briefs. It seems like refineries have been around for a long time and they have been operated for a long time, and you would think that by now you would have a standard design for this type of situation. Is that not true? What was the evidence about that?

BOYCE: I don't know that there was evidence of a standard design. I think that there was evidence that these plants developed over time. They are expanded over time. Developed over time. Designed over time. And in the course of circumstances where it becomes apparent that there is a risk, for example, the prior incidents involving a suction line, then the appropriate design response was made to address that understood risk.

PHILLIPS: Wouldn't it be a fair reading of the legislation and its clear intent to treat worker's compensation benefits as damages and make the calculations - the legislature clearly intended to be made from the \_\_\_\_\_?

BOYCE: I don't think that the four-corners of the statute reveals such an intent. And to the extent that legislative history is consulted, I don't think that that makes it clearer either. I think

that to the extent that there was some discussion of it - what we've been able to find in terms of the legislative history is set out on pages 530-551 of the clerk's record. We found a passing reference to a circumstance: what do you do with the caps when there's no actual economic damages? But in terms of some kind of a detailed analysis that the legislature said, Well we understand that this impacts worker's comp situation in this way and here's how we are going to address it. I don't see that in the legislative history.

PHILLIPS: But they wanted this to be an over-arching statute to prevail over any other law to the extent of any conflict. Do you agree with that?

BOYCE: I guess I am approaching it from the understanding that there was a presumption that when the legislature acts it acts with knowledge and anticipation of the existing law, which in this case is Wright v. Gifford Hill. When the exemption for worker's comp was taken out of the damages cap in 1995, Wright v. Gifford Hill had been on the books for several years. So I think when you operate from the presumption that's reflected for example in this court's Polasios(?) case, that the legislature knows what the state of the law is when it acts, then I don't know that that assumption is warranted. I think you're left with the 4-corners of the way the statute reads.

PHILLIPS: Did you preserve your objection to the single business enterprise theory at the charge conference?

BOYCE: Yes. We did. And I would direct the court's attention to the charge objection that was made, which was in terms of the no evidence as to the propriety of submitting Ultramar in connection with the punitive damages question.

O'NEILL: How could that be harmful error about statutory caps? Say it was error to admit the evidence of Ultramar's \_\_\_\_\_. If you've got a cap where's the harm?

BOYCE: I guess there is harm in two respects. One, the way this judgment reads, there is an exemplary damages award in some amount reflecting of a gross negligence finding against Ultramar, which wasn't even submitted in the jury charge in terms of being Mr. Hall's employer. Secondly, the Alamo v. Kraus(?) factors reflected in the statute contemplate that net worth is something that's got to be considered. And regardless of however the cap operates, I think if reasonable proportionality and protections that are reflected in the Alamo v. Kraus factors are going to have any meaning, you need to get the net worth right in terms of what the jury is presented with. So I don't think that saying that there's a cap is necessarily a complete answer to this question - is single business enterprise appropriately submitted.

I would also point out that in addition to the written charge objection that appears at page 263 of the clerk's record, and was expressly overruled at page 295 of the clerk's record, you need to understand that the objection with respect to single business enterprise came against a backdrop of a continuing dialogue during the trial leading up to this issue. I think the most

analogous circumstance is this court's discussion of preservation in *Southeastern Pipeline v. Tahachi*(?). In response to a contention in that case that the charge objection had been waived the court went back and looked at discussion of what had led up to that during the course of the trial. The bottom line here is did the TC understand the nature of Diamond Shamrock's complaint? And I think the answer is unequivocally yes. And under those circumstances, I believe the charge objection that was made is more than sufficient even if you assume the charge objection was required. Essentially this was a directed verdict with respect to single business enterprise. So I'm not sure that you even need to get to the charge objection stage. But if you assume that some objection was made, I think this record clearly shows the TC understood what Diamond Shamrock's concern was.

WAINWRIGHT: Part of your brief suggest your position that this explosion occurred as the unlikely consequence of a series of unlikely events all happening simultaneously. What are those?

BOYCE: Starting out with a circumstance where there is a greater than usual presence of liquids, which fills up the low stage suction drum, the accumulator pot. You have a circumstance then where the operators look to see if that's all drained out. If it has to their site. It appears that there's no liquid present. But you have a circumstance where the check valve has leaked, which has allowed liquid to get behind it and pull next to the block valve on the discharge side. There's also some conflicting evidence in terms of the block valve leaking (it wasn't clear in the record whether that leak was before or contemporaneous with the event that occurred) but nonetheless you have a circumstance where the liquid arguably gets past the block valve, then the block valve is opened up and the pool of liquids go up through a recirculating line and coming through the top hook up to the suction line and then is drawn into the compressor from the top. That's the sequence of events as I understand it. And I continue to ask the court to focus on the undisputed fact that a liquid accumulation on the discharge side had not occurred before.

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RESPONDENT

LOVELL: The law is meaningless unless there's consequences. And here Diamond Shamrock has avoided the consequences of moving for judgment on the verdict. Consequence being that they waive their sufficiency claim. And here of course we've gone through this entire appellate process and we're focused primarily on sufficiency.

In addition they've avoided the consequences of inducing the TC in to the very error that forms most of the other claims in this case. Diamond Shamrock intentionally created this mess, and as a result the law says they are estopped to benefit from it by application to cap.

First I want to address legal sufficiency of the evidence. Perhaps the best way to do it is to go straight to J. Wainwright's question a moment ago for a list of the primary things which show the evidence which shows that there was conscience indifference, the subjective element.

First, and this is the greatest distinction that Diamond Shamrock does not address. And that is that the liquids were placed in a vapor only system. And it was done knowingly. The reason that this hasn't arisen before is because Diamond Shamrock never knowingly and intentionally violated its own safety procedures to put those liquids into this system.

WAINWRIGHT: Is your complaint in that regard of complaint about the design of the system, or about the operation? You seem to go back and forth.

LOVELL: Well that's part of the whole thing. There's several things that go together. But that's the starting place. That being the intentional flooding of the RLE vapor \_\_\_ system. In contravention of their own procedure and in contravention of course as you've seen in the briefs of all the complaints and phone calls and that kind of things. But that was the start of it. Unlike Andrade, which dealt with a situation of electricity. The electricity can be turned on and off. And if it's off there's no danger. With this system and under these circumstances the liquids once they are put there they have to be removed. And there's no question about that. There is no dispute about that by anybody throughout the record. If there are liquids in this system they have to be removed, because even as their own expert said even a small portion, a small quantity of liquid in a compressor will result in a rupture with absolute certainty. That was the term.

Now take that and combine it with the design. (Lawyer goes to chart.) Diamond Shamrock designed the system after prior explosions and this particular system was designed to take liquids and drop them into the discharge line.

I will carry you through the flow. They drop into the discharge line. If it's a small amount of liquids, just the kind of liquids that might drop out of the vapors under normal circumstances, and the compressors are running, the \_\_\_ flow of gas coming of the compressor will then take those flow amount of liquids, carry them on out of the system. The problem here was they flooded this to such an extent that they had to shut this down. The reason is, where the gases are coming in is in to the suction drum, and it is designed to catch any liquids that may fall out. Of course they overfilled this suction drum. We had alarms and that kind of things. So they had to shut it down so that it wouldn't go directly into the compressor. They shut it down, they flood these liquids without the compressor running and with such volumes you had nothing to carry it out with.

And the way this is designed these pipes are all inclined back towards the compressor. So we have the force of gravity, we have the force of back pressure which is in this \_\_\_\_\_ accumulator pushing back (this is the check valve in question) and then dropping it, the force of gravity right down to the lowest point. The lowest point in this entire system accept for this accumulator is right here in the discharge of the compressor. The startup procedure which is another portion of this requires that to start this back up, they close the bypass valve so that the discharge then circulates straight into the suction so there is no load on the engine till they get it warmed up. Then they open the discharge valve. And then as long as everything is okay then they open the suction valve and that creates the low that starts moving the gas.



By having that situation, by knowingly flooding the system they were putting liquids into this system that they designed to force them back to this very point, so that when the engine is running they open the discharge valve, the liquids rush in from this point here, it caught the circulation straight into the suction and it ruptured.

WAINWRIGHT: The suction lines are what color compared to the discharge lines?

LOVELL: I didn't distinguish the suction verses the discharge. If you look, you've got this in a handout, they've got arrows here. And really this particular diagram doesn't focus on the suction side. This one does. Here is another diagram. Here is the suction side coming into that suction drum. And so then under normal operations it will be coming in here to the top. When we have a startup, this is closed off here to this valve, and then first this is closed off, the bypass valve here is open so that it can cycle(?), then the block valve is opened and that allowed these liquids then to rush in.

O'NEILL: Are the bleeder valve and the ball valve their sole purpose is to prevent liquid from entering the system and to prevent black flow?

LOVELL: No. As to the ball valve. It has multiple functions. The primary function under normal circumstances is to prevent back flow and just to shut that system off. Now the bleeder valve, of course that's another one of the elements. This bleeder valve was designed into the system back in 1981 when they built this shortly after these two prior explosions. It's just like a little drain. Diamond Shamrock contends that its only function and the only design to it was that that was put in so that when it was built this system could be hydrostatically tested, which is precisely the point. They put liquids. The last time they intentionally put liquids into this system is when they hydrostatically tested it. They put that drain there so that they could drain the liquids out before they started operating. That's why it was there.

Now in addition, in that connection, there is evidence that the operator in the fee(?) prep unit when this first started happening around noon, when the liquids first started coming over, his name was Steven Hendricks, testified that he knew about that drain valve. And he testified that when he first learned about it, he learned about it in the 80's from his boss, Elmer Schneider, who told him that liquids could get in that portion of the discharge line and if they did they could get carried up into the suction and cause a rupture. He knew about that.

Mr. Shamblett(?) who was the crew unit supervisor, he testified that he had used that very bleeder valve several years before to release the pressure during a maintenance operation. So he knew about it. And then what we had happen on April 1 is that once the hydrocracker unit started producing all these liquids and refused to follow procedure and divert those liquids to the torch, that the liquids came in here during Mr. Hendricks shift. Then Mr. Thornburg, Kevin Smith and Charlie Hall their crew came on approximately 3:00. They met with them at 3:30. At that point by about 3:00 finally Gary \_\_\_\_\_ in the hydrocracker unit defied orders and diverted to storage. He had to defy orders to do that to divert those liquids. Then they started to process of

draining. Then once everything that was drained that they knew about, then they were instructed to start up, and that's when it happened.

HECHT: The petitioners says we should focus on the fact that no liquid had accumulated on the discharge side before. What's your response to that?

LOVELL: No liquid had accumulated there before because the hydrocracker unit had never knowingly sent liquids over there. That is entirely against procedure to do that.

HECHT: And is it fair to say that sort of bottom line what the plaintiff has to prove for this subjective prong is that Diamond Shamrock either built or operated the plant without caring whether it was going to blowup or not?

LOVELL: No that's an overstatement. Here it would be that they were aware of the risks in question and in defining that risk, the risk is putting liquids into this vapor system.

HECHT: Which means it's going to blow up.

LOVELL: Unless something is done to remove those liquids that's right.

HECHT: Then isn't the bottom line that the subject prong means - the conscious indifference part means that Diamond Shamrock either built or operated the plant without caring whether it would blowup or not? It's kind of hard to see why you would do that.

LOVELL: Well that would be intentional. And here it's a question of gross neglect. So it becomes whether they are aware of the risk and were consciously indifferent to that risk. A good analogy we think is the Seminole Pipeline case, where you had the pipeline company that built this cavern themselves, they designed it. It was a cavern where liquid gases went in and were offset with brine. And the key component there was to keep tract of how much liquid gas they had in there so that it wouldn't come back up through the brine stem. There it's really a fairly similar situation. They knew that if they allowed liquids to come up through the brine stem that the gas would then escape and could cause an explosion problem. So it wasn't a question there of whether or not they were indifferent to an explosion. It was a question of whether they were indifferent to the things they had subjective awareness of to prevent that explosion. And that's what we have here is they were indifferent once they put those liquids in, defied procedure and put those liquids in, then it incumbent upon them, given their knowledge of what will happen with even a small amount of liquid, it is incumbent upon them to do whatever it takes to get all the liquids out before they start that compressor up and to know. And if that requires going to the office and opening the drawer and pulling out the piping and instrumentation diagram and seeing that bleeder valve, then that's what they should have done.

And here we even had evidence that certain people involved in this knew about that bleeder valve. But the shift changed, they went off, and then Charley Hall and his crew

ended up paying the price for that.

So there's more than sufficient evidence to support the finding.

HECHT: Do you agree that it has to be clear and convincing?

LOVELL: If ch. 41 applies, it's clear and convincing standard. This was tried assuming that. The jury was instructed clear and convincing and we tried it that way. The jury found it that way.

The two other aspects with respect to evidence are the check valve, which has been touched on before and evidence that that very check valve had been reported. And if you'll notice that very check valve is Diamond Shamrock's only - it is the only thing they can rely on, and the evidence was clear and convincing that even had it not malfunctioned it still would not have prevented this because check valves leak liquids. Their own expert said that. Their own safety manager said that: Check valves are not designed to hold liquids. They are designed to prevent reverse flow, which can reverse the equipment.

And then lastly, we talked about this startup procedure. In the feed prep unit where this happened, prior to it happening the procedure was that when you start it up like I explained, put it on bypass, you start running it, first you run it with air, then as the pistons start moving you replace that with fuel gas so that it starts running on its own. Once it's warmed up then they open the discharge valve first that's down on the low part and then open the suction valve. At the same time in April 1996 in the hydrocracker unit, which also has an RLE compressor system, they had a procedure which required that they cracked a bleeder valve at the very bottom.

As applied in this case, ch. 41 is unconstitutional. The reason being is really two fold. The application that happened was that we were not allowed to put on evidence of actual damages. Now as applied then, and as Diamond Shamrock argues it's supposed to apply, a plaintiff is not entitled to an award of exemplary damages unless there is an award of actual damages - compensatory and noncompensatory. Now they then say to try to avoid the constitutionality problem, well that means the cap is automatically \$200,000. But they can't piecemeal the statute, because the statute says that there has to be an "award" of actual damages in order to have "award" of exemplary damages.

PHILLIPS: Are you saying it's unconstitutional because of the open courts or unconstitutional because of the provision about gross negligence in death cases?

LOVELL: Both actually. As to the open courts by applying it that way the actual effect of that is - that the cap isn't \$200,000. It's zero if it's applied as they say. And so the effect is that a plaintiff is denied their due course of law because while there may be a cause of action there is no remedy, because you can't put on any evidence to support your cause of action. So the effect is the denial of due course of law as sought to be applied by Diamond Shamrock.

The other aspect is § 26, art. 16. The position has been taken throughout, including the court below, that it cannot be unconstitutional because exemplary damages are a public right. And the open courts provision only protects private remedies. But that does not focus on the actual language of the constitutional amendment, which says that companies shall be responsible to the survivors of the deceased person. It doesn't say to the public. It actually says it will be responsible to those people in exemplary damages. And I think there's a difference there. So it's our position that does involve a private right, so that does raise constitutional implications.

If the statute does apply, and we say it doesn't because the legislature amended it out and it had to come back in and amended in in 1997, but if it does apply then the statute is simple, it's straight forward, and it tells trial courts what they are supposed to do.

JEFFERSON: What's your strongest evidence that Diamond Shamrock anticipated that there would be liquids in that discharge area?

LOVELL: All of the evidence surrounding what happened in the hydrocracker unit.

JEFFERSON: They had safety provisions in place to prevent - I mean the whole design was to prevent liquids from getting in there because they realized the danger of an explosion. So why would we not assume that if they had anticipated there would be liquid there that they would have guarded against it?

LOVELL: If that was right they would have never sent those liquids over to begin with. Because in the hydrocracker procedures it is procedure that if liquids start carrying over from the overhead fractionator into the RLE system they are to give birth those liquids to storage or to the \_\_\_\_\_. They were asked to do that. They were denied permission to do that.

O'NEILL: Why? Do we know?

LOVELL: There's not a real clear answer. There is some suggestion that the operator that was in charge of starting up on this occasion thought he might need more liquids, but there's also evidence that really couldn't have been the reason because they still had plenty of liquids.

OWEN: Why do you need more liquids to start up?

LOVELL: It's all part of a process. The plant doesn't just dispose of liquids. It uses them. And ultimately sells them. But it's part of the whole fractionator startup process, some amount of liquids are run back through as part of the cooling process. But here they had way too many liquids and so they were using them to try to cool it down. And even doing that they still had \_\_\_\_\_, and they refused to divert to the \_\_\_\_\_. And the simple fact of the matter is it goes to the \_\_\_\_\_, they burn it up and they can't use it or sell it \_\_\_\_\_.

That's the real difference. The so called safeguards to prevent liquids from

getting into the compressor are put in place for the normal kind of expectation that you have that some liquids, some small amount of liquids can fall out of the gas stream during normal operating process. And we don't deny that. That's true. But here they put them in there on purpose. And that's what changes this case from just a cold day when more liquids than usual falling out into the \_\_\_\_\_ suction drum.

OWEN: Was there any evidence that they had done that before?

LOVELL: No there wasn't.

OWEN: Was the record silent or was there affirmative evidence they never sent liquids over from the hydrocracker unit?

LOVELL: I don't believe there was affirmative evidence. My recollection is, that this particular thing had never happened before. And then the evidence from almost all of the personnel on the hydrocracker unit that this was contrary to procedure. They always diverted any liquids to storage and to the \_\_\_\_\_.

OWEN: But I thought you said they used liquids sometimes to start it up.

LOVELL: In excess of liquids. That's true. Some of the liquids go back through into circulation. But if they are getting an excess of liquids, then that's why the whole plant is set up with systems where they can divert liquids, they can divert pressure. Ultimately that goes to the \_\_\_\_\_ line, so that if there's some surge in pressure or extra liquids or things like that they can get rid of them in a hurry before they become a problem by running them out \_\_\_\_\_ and burning them up.

And so that's what was going on here and that's what the request was: divert to the torch; divert to the torch; divert to the torch.

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#### REBUTTAL

BOYCE: I would like to address J. Jefferson's question in terms of evidence with respect to an expectation that there would be liquids on the discharge side. The evidence in the briefing that the plaintiffs pointed to to try to get there is addressed in our reply brief at pages 14-15.  
SIDE A RUNS OUT

SIDE B

... at pages 80-82. But I think when the court looks at that testimony what the court will see is that is testimony whereby it is acknowledged that if liquids get in they will cause an explosion or bust the compressor. I don't think that's tantamount to evidence that they were expected to get in on the discharge side. I think it's part of this larger piece of evidence, which

again is not disputed that liquids need to be kept out of compressors.

OWEN: Why was there a bleeder on the RLE compressor in the hydrocracker unit but not a bleeder on this one? He said that there was a valve in place that they use to drain liquids off before startup in the hydrocracker unit, but they didn't have that kind of bleeder valve over here.

BOYCE: There was not a bleeder valve on the discharge side. And what there was there was a drain valve. I will address that in terms of the hydrostatic testimony first. The bottom line is, I will come back to the undisputed fact. Where there was an anticipation of a need to drain hydrocarbons from the line, then there was a drain valve or bleeder valve installed there. That wasn't the anticipation on the discharge side. The drain valves that were located there had been used solely for the purpose...

OWEN: I'm talking about the hydrocracker unit. Was there a valve on the discharge side over there?

BOYCE: I'm not sure that the record was clear on that. And I think the clearer question was that the drain valves that were used were used in recognition of the risks that were anticipated. And it's wasn't anticipated on this side. And I think there's also this notion that trying to get to the notion that liquids have absolutely no presence being in the RLE system at all, again you've got protections there that recognize there can be liquids under some circumstances. But the thought that the tie-in there is somehow tantamount to funneling liquids directly into the compressor from the discharge side, I don't think that's borne out by the record. And I would specifically direct the court to plaintiff's expert testimony of Mr. \_\_\_\_\_ vol 5 of the record, at page 46, where he testified that the tie-in that is referenced here is 12-15 feet away from the valves that are of concern. So in retrospect this all came together in a way to cause this incident. But I don't think the record supports a contention that the tie-in was located such that it would directly channel liquids into the compressor from the discharge side.

OWEN: They keep saying the check valve was the only equipment that would prevent this, and that you knew that would leak.

BOYCE: No. I would direct you to Mr. \_\_\_\_\_ testimony again at pages 158-160, where he was led through a statement of what were the redundant backup systems here for protections. You've got a check valve certainly but that's not the only thing. You've got the low stage suction drum and you also have the block valve. So I don't think it would be accurate on the record to say that the check valve was the sole and only line of defense.