

REMARKS ON OILY WATER SEPARATORS

**Presented by
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By

**HENDRIK FOKKO VAN HEMMEN
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Good Morning Ladies and Gentlemen:

Please note that I am not providing these remarks as the Chairman of SNAME Ad Hoc Panel 14, but rather as an engineer who has been involved in the marine industry since boyhood.

In that time I have learned that the marine industry is a special place. It provides an honest living to those who want to work hard and it provides one with a global perspective rather than narrow national or regional perspectives.

In the marine industry one has to be able to take care of oneself, but at the same time depend on each other. You are expected to do your job, but at the same time when things go wrong you can count on your fellow mariners both at sea and ashore to lend a helping hand or even risk their lives to save you.

This culture runs deep and is encountered every day, whether it relates to ship's crews who doggedly operate their ships in the North Atlantic winter or to members of the United States Coast Guard who risk their lives trying to find ships and crews that are in trouble in those same storms.

I have always been comfortable in this culture; I like the expectation of doing the job assigned to me and like the support and cooperation, especially when things go wrong.

But nothing stays the same, our community has always been changing, wood to steel, sail to steam and while I like the feel of wood and the sight of sail, generally the changes are for the better.

Today the industry is undergoing another worthwhile change, we are teaching ourselves not only to reliably deliver our cargoes and passengers to ports around the world, but also to do this in an environmentally sound fashion.

This is a great change, not only because sound environmental behavior benefits everyone and helps the image of our industry, but also because I suspect that once we get our ducks

in a row we will be an even more efficient industry and will continue to lead the world in showing how to do things the right way on an international level.

However, this is probably our most difficult challenge yet. Not because we do not want to do it, but rather because the execution of this change does not fit our “can do” market driven culture. Instead it is driven through rapidly changing regulations and the threat of criminal prosecution.

All of us are starting to encounter this new and confusing approach and are struggling to find the proper balance to conform to these demands. This is because properly responding to those mandates is not a matter of being smarter or tougher as we have been accustomed to, but rather a matter of complying with regulations.

This is difficult and as an engineer who has been deeply engaged in this issue on an operational level, I have seen our industry struggle with this for over a decade.

The genesis of the environmental challenges we face is, in fact, much older, and started while as a twelve year old in Holland I was accompanying my father on trip in tow inspections in the ports of Rotterdam and Antwerp. In those days, while I was raiding the soft ice cream machines on the drill rigs and ocean going tugs, others were installing oily water separators in the engine rooms.

This was the start of the environmental trend in our industry and has since been followed by segregated ballast tanks, crude oil washing, double hulls, sanitary systems, ballast water systems, emission regulations and the trend continues.

I have been trained as a Naval Architect and Marine Engineer and have been involved in engine room design and failure analysis since 1982, but I did not first encounter oily water separators until the late eighties when performing P& I condition surveys. Such surveys required inspections according to a lengthy form and one of the items on the form said something like “OWS 15 ppm” and had a little blank to fill out.

When I first encountered this entry I went to the books to check what it meant. After quite a bit of searching I found a reference to Marpol regulations, and hunted that down. I discovered these units are required equipment and started looking for information as to what this equipment is like and how it is supposed to work.

I found nothing. So when performing these surveys I would ask the crew to show me the OWS. They would take me to a piece of equipment situated just above the bilges in the engine room and I would try to figure out if it was operational. Generally I would write “Yes” in the OWS blank if it looked as if something like an OWS was present in the lower engine room. Sometimes, if there was all kinds of loose stuff hanging off, I would make a recommendation like “To be restored to operational condition.”

This state of affairs lasted until a few years ago when the United States Coast Guard and other port states increased their vigilance regarding oily water separator and oil record book inspections and this has raised the awareness on the operation of these units.

As consulting engineers our firm has often been called in to assist Owners and crews when they are faced with potential criminal prosecutions related to oily water separator violations in the widest sense of the word.

During those attendances it became clear to us that OWS technology and regulations are far from mature and this makes following the law, and enforcing the law, a difficult and confusing proposition.

I am a licensed professional engineer, which requires that I adhere to the Professional Engineer's Code of Ethics. This means that while I am allowed to professionally assist specific clients, I am also duty bound to protect the public from harm. Aboard the ships I saw crewmembers under great stress regarding oily water separator operations because it appeared they were burdened with operating an immature system for which, in many cases, no clear procedures existed. This made me decide that, as an engineer, and, as a member of the maritime community, these crewmembers deserved protection from harm under the Engineer's Code of Ethics. Generally, under the Code of Ethics in a situation such as this, it is the engineer's duty to bring the problem to the attention of the proper authority. This is generally the government, but this is difficult to do when one is facing armed criminal investigators and US district attorneys and while one's clients face fines and prison sentences.

Instead, I decided to turn to my professional organization, the Society of Naval Architects and Marine Engineers, and requested that an Ad Hoc technology and research panel be formed to investigate OWS system design and operation. This request was granted and I became the Ad Hoc Chairman Pro Tem for this panel. I just intended to form a panel, but it soon became clear that there was no rush to chair this panel by others.

Therefore I dug in and started looking into the subject on a technical level. When I use the term "Technical" allow me to point out that while the public often assumes that technical is related to math and physics and materials, to an engineer the human is central in the technical approach, therefore when I use the word "technical", I also include science based psychological, economical and operational factors. First, I tried to determine the state of the art and found that there was no state of the art. Then I tried to get information from people in the industry and found that many people were willing to talk off the record, but that anybody who was anywhere remotely involved with the operation of these systems was very cautious about publicly saying anything that could be misinterpreted. And the nature of the problem is such that, at first glance, just about anything can be misinterpreted.

Nevertheless, I collected as much information as I could and I spread the word that we were doing this work.

In March of 2005 I presented a paper on what I found to be the state of the art. This was a technical paper and peer reviewed. While not everyone agreed with everything I said, as a whole, the paper was positively received.

With this paper as a basis, the panel continued to grow to where, today, there are over 90 correspondents from all facets of the industry and from many countries.

We continued to make additional presentations on the subject and we established a web presence. This provided additional input and feedback, all of which indicated that many people were working on solutions, but that there were still plenty of problems left and that there was no real indication that the problems would be solved unless a significant industry wide technology effort was started.

At the end of 2005 I prepared a draft paper with initial recommendations relating to possible improvements of OWS systems. This paper was circulated in draft format to all members in the panel and beyond, and comments were requested. I received some comments and corrections and fully incorporated these into the final paper. This paper was presented at the MEETS meeting in January of 2005 to very little dissent and significant approval.

This was good, because the MEETS symposium was very heavily attended by highly qualified marine environmental technology specialists. This indicated that the conclusions in this paper were not far off the mark. But at that stage I had arrived at an impasse. I had done my homework and knew that while the enforcement of OWS systems continued and expanded, the technology and procedures to which the enforcement relates is flawed. The panel had made recommendations, but who was going to implement them? Technologists agreed there was a problem, but somehow the connection with the rest of the world was not being made.

Why wasn't the connection being made? There are many reasons, too many to mention here and that's why I wrote lengthy papers on the subject and I suggest you read them.

But here I was, I knew there was a complex problem that needed to be presented to the public in 10 to 30 minute sound bites, and could think of only one solution.

At this stage please allow me to deviate a little from the main subject of this presentation. Earlier in this presentation I mentioned that I was born and raised in Holland. English is not my native language. When I was learning the English language many years ago, I discovered that the English language is peppered with negative allusions to the Dutch.

You might have heard of the following expressions:

Getting in Dutch
Dutch courage
Dutch treat
Double Dutch

The Dutch Act
A Dutch Widow
A Dutch Concert
A Dutch Nighthale

My father in law often tells me that: “The trouble with the Dutch is giving too little and asking too much”.... This is actually a case of the kettle calling the pot black, since he is Scottish.

Another one I first encountered in a US shipyard when somebody mentioned they used a Dutchman to fix a problem. I asked who this Dutchman was and after the confusion cleared up I learned that they were referring to a cheap and hidden fix.

There are reasons why the English language has these peculiar allusions. In the 17th century the tiny Dutch nation was trading the pants of the much larger British merchant empire, and this must have made the British rather uncomfortable. If somebody bigger beats you up you portray him as an ogre or a bully, but if somebody smaller is getting in your way the simplest response is to disparage his skills and motives.

This is why the English language portrayed the Dutch as cheap, suicidal, immoral, drunk, slippery, unmusical or whatever other negative character trait exists.

Does this bother me? Not really, I like the English language, I like the English and I know the facts, and to me these terms are simply expressions formulated at a time when a large powerful group tried to diminish a smaller more skillful group.

But there is another expression that relates to the Dutch and that is “Dutch Uncle”. A “Dutch Uncle” is someone who admonishes sternly and bluntly. I did some further research on this expression and discovered that there is no agreement as to whether this term is positive or negative.

Regardless, there is no doubt that on the subject of oily water separators I have Dutch Uncled, and it seems it has started to draw some attention to the subject, which is what is desperately needed. But once the stern and blunt admonishment has been made, there is no need to continue to Dutch Uncle and it becomes time for everybody to settle down and to get to work on the problem.

This is where Dutch Uncles are thought to be less useful and a different personality needs to take over. The next step in the path to improved OWS systems is not a task that can be performed by a single person speaking bluntly, but rather will require a funded and cooperative industry wide effort. Although it is important to remember that such an effort will only be effective if it is based on technical truths and realistic assessments.

As far as my professional duties are concerned I believe I have succeeded in informing the necessary industry and governmental parties about the problems with OWS, and as such, I have discharged my duties under my Code of Ethics.

Based on these considerations I have decided to retire as Chairman of the Ad Hoc panel as of today.

As an engineer committed to this industry I will continue to support the Ad Hoc panel, SNAME and the industry with regard to oily water separators, but, as of today, I will no longer lead the panel.

Instead I challenge other dedicated industry professionals to take the sheets and tiller of the panel and hope that they will be able to secure the funds and solutions needed to provide the world's ships with sound, reliable and efficient OWS systems.

Let me close with stating that leading the panel has been an enlightening experience and I thank those who assisted me while I chaired the panel

I also thank the Connecticut Maritime Association for the opportunity to express my thoughts on this subject.

Let's also thank our brothers and sisters who sail the seas, they are the ones who are carrying the physical burden of our noble efforts to improve the industry while we are sitting here in comfort.

Most of all, let's not forget that, right now, they need our help.

Some internet excerpts on "Dutch" phrases

www.petticoated.com/saffy23.htm

Saffy's Corner

Dutch Uncle/Treat

Dutch readers should perhaps look away...

In the seventeenth century, the Dutch and British were enemies. Both wanted maritime superiority for economic reasons, especially control of the sea routes from the rich spice islands of the East Indies. The two countries fought three wars at sea between the years 1652 and 1674. At the lowest point of the struggle, in May 1667, the Dutch sailed up the Medway, sank a lot of ships, and blockaded the Thames. The Dutch were powerful, they were the enemy, and their name was taken in vain at every opportunity.

The stereotype of the Dutchman among the English at this period was somebody stolid, miserly, and bad-tempered, and these associations, especially the stinginess, were linked to several phrases. Only a small number of them are actually recorded in print from the time of the Dutch wars, most being of eighteenth century provenance or later. But there's nothing so long lasting as traditional enmity, as later phrases borrowed the ideas from earlier ones.

Examples from the time of the Dutch wars include 'Dutch reckoning', a bill that is presented without any details, and which only gets bigger if you question it, and a 'Dutch widow', a prostitute. In the same spirit, but recorded later, are 'Dutch auction', one in which the prices go down instead of up; 'Dutch courage', temporary bravery induced by alcohol; 'Dutch metal', an alloy of copper and zinc used as a substitute for gold foil; 'Dutch comfort' or 'Dutch consolation', in which somebody might say "thank God it is no worse!"; 'Dutch concert', in which each musician plays a different tune; 'Dutch uncle', someone who criticises or rebukes you with the frankness of a relative; and 'Dutch treat', one in which those invited pay for themselves (this last one first appeared only in the twentieth century, but it continues the associations). Some are now so embedded in the language that direct associations with the Dutch or the Netherlands have largely been lost - Dutch uncle, for example.

www.word-detective.com

The Word Detective on the Web
is the online version of The Word Detective,
a newspaper column answering readers' questions
about words and language.

The Word Detective is written by
Evan Morris and appears in finer newspapers
in the U.S., Mexico and Japan.

All Things Dutch

Dear Evan: Why do they refer to a suicide as "the Dutch act"? -- Judith M. Levan, via the Internet.

Dear Evan: Just wondering about the phrase "Dutch uncle." It came up in a crossword puzzle - and I hate not knowing!
-- Dodie Ownes, Denver CO.

What we have here, folks, is a genuine coincidence. I received these questions within two days of each other, leading me to wonder if I might not be missing some important news development that put "Dutch" on the tip of our collective tongue, but evidently not. Well, at least it beats getting three questions about "posh" every day. The phrases "Dutch act," meaning "suicide," and "Dutch uncle," meaning someone who is not your uncle but gives you advice as if he were, are both linguistic relics of a low point in relations between England and The Netherlands. Back in the 17th century, when both countries were building their global empires, their intense rivalry found an outlet in a wide range of popular sayings invented by each country to insult the other. Since we are primarily an English-speaking culture, the few volleys in this linguistic war that have survived are, naturally, those disparaging the Dutch, but even those are

rarely heard today. Some, such as "Dutch uncle," were probably originally meant to be more insulting than we consider them today.

According to Hugh Rawson, who explores the topic at length in his wonderful book "Wicked Words" (Crown Publishers), many of the English anti-Dutch terms became popular in the U.S. because of confusion with the word "Deutsch," or German, and were often applied to German immigrants. For the connoisseurs of insults among us, Mr. Rawson lists more than two pages of anti-Dutch slurs once popular. Along with "Dutch treat," which means no "treat" at all because each person pays his or her own way, other phrases once current included "Dutch courage" (liquor), "Dutch defense" (a retreat), "Dutch headache" (a hangover), "Do a Dutch" (commit suicide), "Dutch concert" (a drunken uproar), and "Dutch nightingale" (a frog), which seems an especially low blow.

Stupid Question™

Aug. 31, 2000

By John Ruch

Q: It is positive or negative to be called a "Dutch uncle"?

—Tom

A: If you're from Holland and have a nephew, you have nothing to worry about. But if you're referring to the English phrase, I'm not sure if it's positive or negative, because its meaning appears to be in transition.

Dictionary definitions generally agree that a "Dutch uncle" is someone who gives you blunt criticism. But they vary widely and subtly in specifics. Is a Dutch uncle "brutally frank" or "firm but kindly"? Is he "someone not your uncle who gives you advice as though he was," or merely "someone close enough to speak directly"?

One certainty is that the phrase is part of a series of "Dutch" slurs, which also include "Dutch treat" (everybody pays) and "Dutch courage" (drunken bragging). Such terms got their start in the 1600s, during trade tensions between England and the Netherlands. But they got new life in 1800s America as jokes about German immigrants, because "Dutch" was confused with "Deutsch," which is German for "German." (So you can keep this straight: "Deutsch" is an old German term for the German language, as distinct from Latin; like "English," it soon became a word for the people themselves. The English spelled "Deutsch" as "Dutch," and for a couple centuries used it as a term for Germans, which at the time also included the people of the Netherlands. When the Netherlands became independent in the 1600s, the English narrowed their meaning of "Dutch" to include Netherlanders only.

That's where "Dutch uncle" comes from—it's of US origin and the first citation dates to 1837.

The "Dutch" slurs often meant little more than "foreign and stupid," like Polish jokes. They all worked by using "Dutch" to indicate a reversal of common practice: in a "Dutch treat," there was no treat; in a "Dutch auction," the bidding amount was reduced until someone bid the lowest possible amount.

So we would expect that a "Dutch uncle" is the opposite of a regular uncle. And in US tradition, an uncle is kindly and indulgent.

With this background, it's pretty clear to me that "Dutch uncle" was *originally* a negative term. Still, it all depends on what you think of harsh advice.

Some etymologists, especially those who take a more positive reading of the phrase, have "discovered" different origins for the term. They suggest that it comes from a supposed Dutch (German?) reputation for strict discipline—and that it reinforces an already harsh meaning of uncle, based on Roman traditions of uncles being strict. As etymologies, these are garbage. But the meaning of a phrase can stray far from its origins, and these fanciful etymologies tell us that meaning is changing. That's not surprising when you consider that people have widely varying feelings about uncles and harsh advice, and that very few people equate "Dutch" with German anymore.

My blunt advice: Pay attention to the context. "Dutch uncle" is as positive or negative as its user intends it to be.