

Solution 4: Zero Alcohol Policy monitoring using hair specimens

For comprehensive details regarding this Solution, please contact ARTION D&A at +30 210 260 1475 or via email at info@artiondna.com

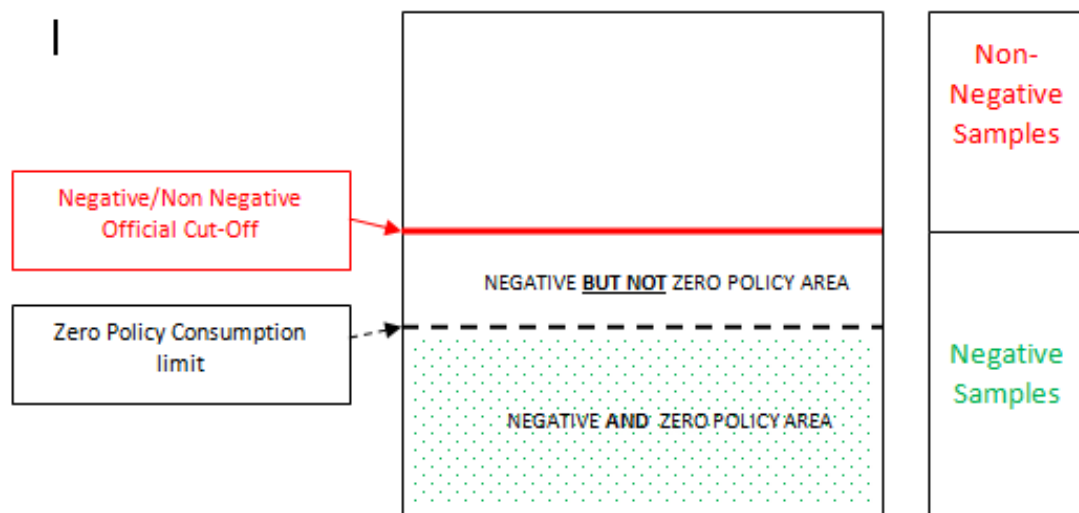
View a brief overview here:

1.4.1 Description

Many Shipping Companies aiming to comply with the industrial standards have implemented Zero Alcohol Policy. A commonly raised question is if the existing Alcohol testing methods can identify a seafarer who does not implement Zero Policy but he is negative. In other words, does the negative test of a seafarer mean also that he implements Zero Alcohol Policy?

The answer is no, because all official Cut-offs of the known methods applicable to all samples (hair, urine, saliva etc) distinguish between a negative and a non-negative sample, which in terms of consumption represents a higher limit than the stricter one of Zero Alcohol Policy.

The picture below presents this difference.



Conclusions:

- a) A sample can be Negative or Non-Negative
- b) A sample can be Negative but within or outside the Zero Policy measurements Area.

So the challenge remaining for the Shipping Companies on how to monitor the zero consumption and how to check if the Zero Alcohol Policy is implemented.

The suggestion of Artion D&A

Artion can now indicate whether crew members are sticking to Zero Alcohol Policy or not. Using the depth of our analysis which is over and above the usual Negative/Positive we can now define the area of results that indicate the Zero Alcohol Policy. (This solution cannot be combined with 1.3 Solution 3).

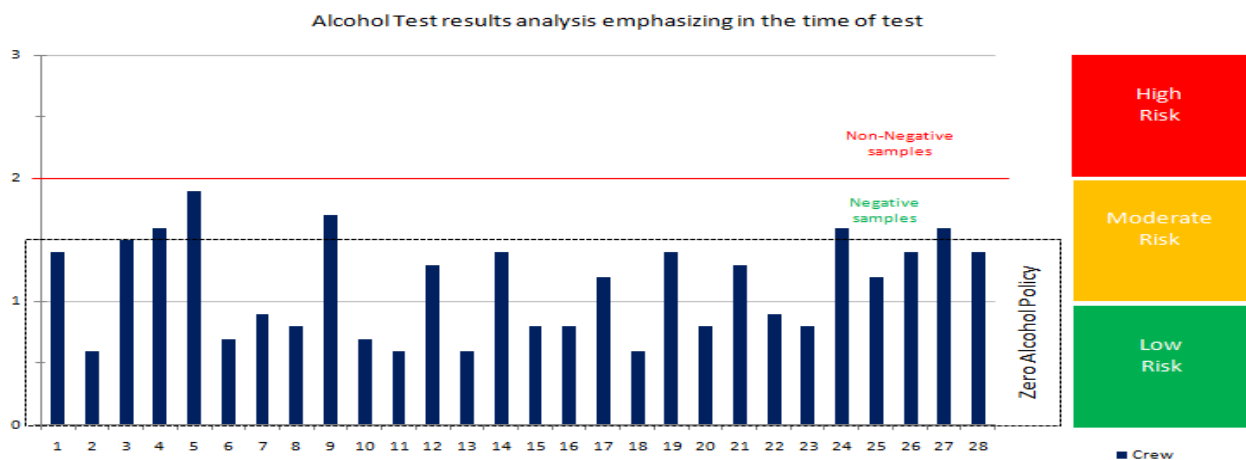
We anticipate that our new research product will help our clients to:

- 1) Take proactive measures when the crew strays from Zero Policy area
- 2) Exercise Due Diligence and demonstrate it against their commitments towards their Customers.

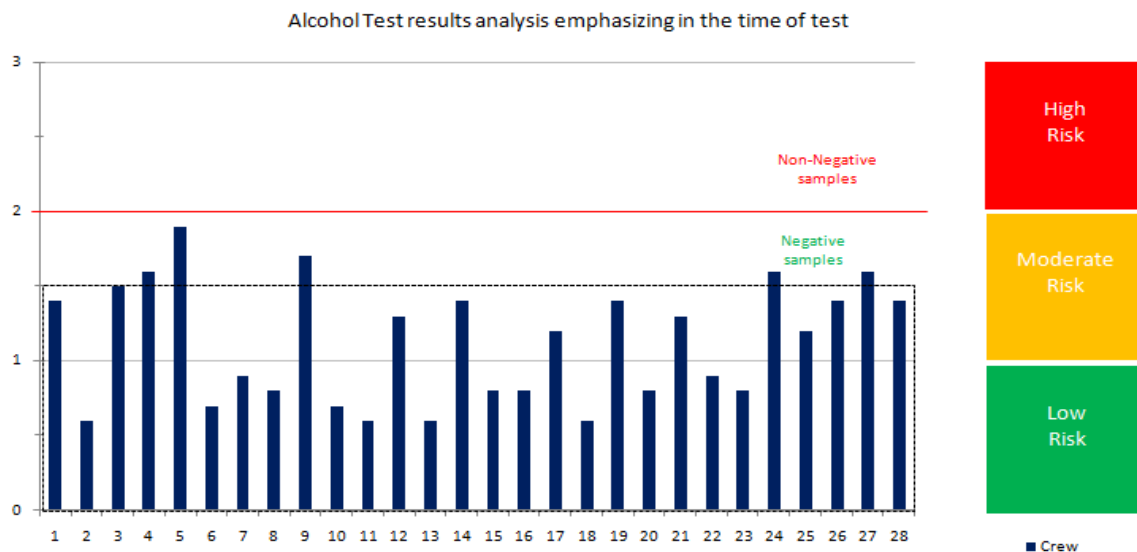
The depiction of Artion's suggestion

We consider that the depiction of this area needs to be simple as to not burden the Operator and add to their workload. We provide the following, giving the opportunity to choose the option that suits the best to the Operators.

Option 1: In the graph below every crew member within the black dashed frame implements Zero Alcohol Policy. As you can see it is marked in black letters on the right of the frame. This will be included in the certificate.



Option 2: The graph below demonstrates in a glance the area of the Zero Alcohol Policy. However, due to discretion, the remark is not included. The interpretation that each seafarer with results within the dashed bar who implements the Zero Alcohol Policy, will be stated only in the comments of the cover message. In the graph, each seafarer who implements the Zero Alcohol policy will appear within the dashed bar.



Specifications of the new service

1. The provided information is a result of scientifically documented research allowing Operators to monitor their fleets and to take proactive measures. It cannot be used in a legal dispute with a seafarer, because there are not applicable official Cut-offs. We can provide our Operators with this information upon request.
2. The Zero Alcohol Policy Area has been designed by taking into consideration average metabolic pathways and an average effect of various medicines. It is recognized that extreme individual metabolic pathways or special medication schemes can produce results simulating the use of Alcohol.

The use of this service is optional.

1.4.2 Analysis methods, the Cut-offs, the targeted substances, the handling of Negative and the non-negative sample

The analysis methods, the Cut-offs, the targeted substances, the handling of Negative and the non-negative sample are the same with Solution 1.

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