



**National Patent
Analytical Systems, Inc.**

April 28, 2011

Vermont Department of Health
Mr. Kirk Kimball
108 Cherry Street
Burlington, VT 05402

Mr. Kimball,

This letter is to review the proper setting for the "Simulator Tolerance Check" for the DMT and its associated software for the Vermont Program.

The software is configured in such a way that there are only two options that can be selected for the "Simulator Tolerance Check". The two choices are simply: Yes or No. The location of the screen within the software to make this selection is under the setup screen for the simulator, select the option for "Tolerance Check". A prompt will appear for either; "Yes" or "No". The proper selection is "Yes". Once this selection has been made, the simulator tolerance is checked during a Breath Test and a Check-In Test.

The software compares the target values to the wet bath simulator values. The software makes a comparison as follows:

If the Target is > 0.080 then,

$$\text{Min} = \text{Target} - 0.005$$

$$\text{Max} = \text{Target} + 0.005$$

For all other Targets, the range is;

$$\text{Min} = \text{Target} - 0.004$$

$$\text{Max} = \text{Target} + 0.004$$

The result being if the Simulator Reading is less than the Minimum value or the Simulator Reading is greater than the Maximum value, the test stops and reports "Standard Out Of Range". If the values are within the limits, the test continues.

Additional technical points:

- A) The Simulator Reading is checked for interference no matter what. The interference check happens before the simulator tolerance check.
- B) The Simulator Tolerance Check setting is totally independent from checking the subject sample for interference.
- C) When the options are printed out there are two listings for the same option. The printout lists "Tolerance Check" and "Simulator Check". The software design is such that both the "tolerance check" and the "simulator check" point to the same option so they should always both be on or both off.

After your review of the information provided above, if you have any questions please feel free to contact us.

Sincerely,

J. Scott Marhefka
Director of Engineering