

**From:** fabiopenon@iol.it  
**Sent:** Friday, February 20, 2015 5:07 AM  
**To:** tdarden@industrialheat.co; ar.123@mail.com  
**Cc:** jvaughn@industrialheat.co; tdameron@industrialheat.co  
**Subject:** R: Re: Tests plan

Dear Mr Darden,

the measurement instruments have been positioned as described by dr Rossi

I take this opportunity to thank dr. Rossi and his staff for their helpfulness and courtesy.

I note that, after the start up of the plant, my visits at the facility without notice will be possible to check the operation of the plant itself.

Sincerely

Fabio Penon

-----Messaggio originale-----

Da: [ar.123@mail.com](mailto:ar.123@mail.com)

Data: 19/02/2015 6.01

A: "Tom Darden" <[tdarden@industrialheat.co](mailto:tdarden@industrialheat.co)>

Cc: <[fabiopenon@iol.it](mailto:fabiopenon@iol.it)>, <[jvaughn@industrialheat.co](mailto:jvaughn@industrialheat.co)>, <[tdameron@industrialheat.co](mailto:tdameron@industrialheat.co)>

Ogg: Re: Tests plan

Thank you Tom: your congratulations are very important for us.  
Warmest Regards,  
Andrea.

p.s. I am in the plant ( it's midnight by the plant, how romantic!) and all is going on well. Tomorrow Industrial heat will supply the first MW to JM.

**Sent:** Thursday, February 19, 2015 at 4:20 AM  
**From:** "Tom Darden" <[tdarden@industrialheat.co](mailto:tdarden@industrialheat.co)>  
**To:** "Andrea Rossi" <[ar.123@mail.com](mailto:ar.123@mail.com)>  
**Cc:** [fabiopenon@iol.it](mailto:fabiopenon@iol.it), [jvaughn@industrialheat.co](mailto:jvaughn@industrialheat.co), [tdameron@industrialheat.co](mailto:tdameron@industrialheat.co)  
**Subject:** Re: Tests plan

Congrats on the startup! This demonstration will have a great impact, beginning in about a month when we have the visitor from overseas!

Tom Darden  
919 522 4095 m

**From:** Andrea Rossi  
**Sent:** Wednesday, February 18, 2015 8:36 PM  
**To:** Tom Darden  
**Cc:** [fabiopenon@iol.it](mailto:fabiopenon@iol.it); [jvaughn@industrialheat.co](mailto:jvaughn@industrialheat.co); [tdameron@industrialheat.co](mailto:tdameron@industrialheat.co)  
**Subject:** Re: Tests plan



CONFIDENTIAL

IH-00019103

Hi Tom!

Ing. Penon is gone, the plant has been started, We are slowly Increasing the temperature, will arrive at full regime tomorrow.

Fulvio and I are here in the plant right now.

So far so good.

Since Ing. Penon is now embarking on an airoplane and cannot answer to you, I can answer to your email on the base of the work made during his permanence here in the last three days.

The temperature in the steam pipe, as you correctly remember, is taken in two positions by means of two thermocouples that have been brought and positioned today by Ing. Penon. Also the temperature of the water in the tank inside the container to feed the pumps is measured by two thermocouples brought and installed under the direction of Ing. Penon. Also the pressure of the steam is measured with two instruments brought by Ing. Penon.

All those instruments for the measurement of temperature of the steam, of the pressure of the steam and of temperature of the water in the water tank inside the container are connected with the computer of property of Ing. Penon, that he brought here and registers the data 24 hours per day, as well as with the control system of ours. Obviously Penon will consider for his calculations only the data registered by his computer, but we can compare the data that he will find with the data that we will find.

I think now he is embarking on the airoplane ( I left him at the airport at 7 p.m.), suppose he will be able to answer you tomorrow.

He reads in copy this message of mine.

Warmest Regards to all,

Andrea

**Sent:** Thursday, February 19, 2015 at 2:03 AM

**From:** "Tom Darden" <[tdarden@industrialheat.co](mailto:tdarden@industrialheat.co)>

**To:** [fabioopenon@iol.it](mailto:fabioopenon@iol.it)

**Cc:** [ar.123@mail.com](mailto:ar.123@mail.com), [jvaughn@industrialheat.co](mailto:jvaughn@industrialheat.co), [tdameron@industrialheat.co](mailto:tdameron@industrialheat.co)

**Subject:** Re: Tests plan

Let's make sure there is more than one way to measure the temperature in that pipe. If I recall correctly there were two or more in Ferrara and there were multiple ones when it was piped in Raleigh. Thanks.

Tom Darden  
919 522 4095 m

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**From:** [fabioopenon@iol.it](mailto:fabioopenon@iol.it)

**Sent:** Wednesday, February 18, 2015 4:59 PM

**To:** [tdarden@industrialheat.co](mailto:tdarden@industrialheat.co)

**Reply To:** [fabioopenon@iol.it](mailto:fabioopenon@iol.it)

**Cc:** [ar.123@mail.com](mailto:ar.123@mail.com); [jvaughn@industrialheat.co](mailto:jvaughn@industrialheat.co); [tdameron@industrialheat.co](mailto:tdameron@industrialheat.co)

**Subject:** R: Re: Tests plan

Dear Mr Darden,

Please find the following answers to your last email:

1. In the scope of proposal by myself prepared at the request of Dr. Rossi for the safety certification of the E-Cat plant MW1 by Bureau Veritas, that I mention in the test protocol proposal PC 1503 ed. 0, is necessary the definition of the technical specification of the system.

The technical specification shows technical characteristics of the plant.

They will be defined according to the results that I will have found during and after the tests that I am performing as the ERV .

2. About the evidence that it is impossible to have a steam pipe that is partially filled with water and partially filled with 103 Celsius degrees steam, I believe the best answer is that the probe is placed at the outlet of the steam at the bottom of the steam pipe section.

If in this part of the pipe the steam temperature is close to or more than 103 ° C, at room pressure, there is only superheated steam and the water cannot be present at that point.

If we move away from the exit point, it is possible the formation of small amounts of water, which will be collected in the collector, but which, in my opinion, does not affect the calculation of the multiple energy produced inside the plant.

Sincerely

Fabio Penon

-----Messaggio originale-----

Da: [tdarden@industrialheat.co](mailto:tdarden@industrialheat.co)

Data: 18/02/2015 18.07

A: <[fabloopenon@iol.it](mailto:fabloopenon@iol.it)>

Cc: <[ar.123@mail.com](mailto:ar.123@mail.com)>, <[jvaughn@industrialheat.co](mailto:jvaughn@industrialheat.co)>, <[tdameron@industrialheat.co](mailto:tdameron@industrialheat.co)>

Ogg: Re: Tests plan

Thanks for the news about BV, I was not aware of that. So, are you saying BV will be certifying the energy multiple of our plant? That is excellent news, we definitely would like to do this.

Could you please draw a diagram (nothing formal, just by hand is fine) showing where the condensate pipe will be?

One more question: a critic could claim that there is water below the steam. How do we prove it is impossible to have a steam pipe which is partially filled with flowing water, and partially filled with 103 degree steam? One way would be to have multiple temperature probes into the steam pipe, so you measure the temperature at the top of the pipe and at the bottom. This is a good idea just to add comfort and certainty to our claims of success. How many probes will there be?

CONFIDENTIAL

IH-00019105



Thanks do very much for your important work. This evaluation will have the eyes of the world on it, once we release any information!

Tom Darden  
919 522 4095 m

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**From:** [fabioopenon@iol.it](mailto:fabioopenon@iol.it)  
**Sent:** Wednesday, February 18, 2015 11:53 AM  
**To:** [tdarden@industrialheat.co](mailto:tdarden@industrialheat.co)  
**Reply To:** [fabioopenon@iol.it](mailto:fabioopenon@iol.it)  
**Cc:** [ar.123@mail.com](mailto:ar.123@mail.com); [jvaughn@industrialheat.co](mailto:jvaughn@industrialheat.co); [tdameron@industrialheat.co](mailto:tdameron@industrialheat.co)  
**Subject:** R: Re: Tests plan

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Dear Mr Darden,

the 'water saturated vapor' is a vapor, whose temperature equals the temperature of boiling at the pressure existing on it ( Mc Graw Hill, Dictionary of scientific & technical terms )

The wet vapor is a vapor containing liquid droplets

The dry water saturated vapor is saturated vapor without suspended particles of water

This is a condition extremely instable.

A slightest heat gain transforms it into a superheated vapor.

In the temperature and pressure interval, in which thermodynamic equilibrium can exist, a fixed saturated vapor temperature corresponds to each pressure.

At a pressure of 760 mm Hg the saturated temperature is 100 °C

In the E-Cat MW1 - USA I will check that the steam pressure is near atmospheric pressure and the temperature of the steam is always significantly greater than 100 ° C at least equal to 103 ° C.

In this way I should be certain that the steam is superheated steam and then always without suspended particles of water.

Following my request a few weeks ago, before the plan start up dr Rossi has to apply a condensed steam collector at the bottom of the steam pipe, before the plant start up

During my visits I will check the amount of the water present

Absolutely I agree that 'having a 100% unquestionable report will be the most important way to establish the credibility of this new energy source'.

In fact, Dr. Rossi has accepted my proposal for the certification of the technical features, such as multiple energy, the E-Cat MW1, by Bureau Veritas, certification body prestigious and well-know over the world.

We are already working on the definition of the technical specification of the plant.

Our goal is to begin the certification tests by end of the year

Sincerely

Fabio Penon

-----Messaggio originale-----

Da: [tdarden@industrialheat.co](mailto:tdarden@industrialheat.co)

Data: 18/02/2015 6.11

A: <[fabioopenon@iol.it](mailto:fabioopenon@iol.it)>, <[ar.123@mail.com](mailto:ar.123@mail.com)>

Cc: <[jvaughn@industrialheat.co](mailto:jvaughn@industrialheat.co)>, "T Barker

Dameron" <[tdameron@industrialheat.co](mailto:tdameron@industrialheat.co)>

Ogg: Re: Tests plan

Dear Dr Penon:

Please let me know your plan for determining that the steam is 100% dry, and that there is no water in the pipe. For example, a sight tube, or a condensate collector coming off the bottom of the steam pipe. These are just suggestions--I am sure you can find the best way to do this.

We are excited to see the machine operate, and we believe that having a 100% unquestionable report will be the most important way to establish the credibility of this new energy source. If we can show the world after the test that our results are completely beyond dispute, this will define Dr Rossi as the most important inventor of all time. Having a solid measurement system is the key to all this.

Tom Darden  
919 522 4095 m

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**From:** [fabioopenon@iol.it](mailto:fabioopenon@iol.it)

**Sent:** Tuesday, February 10, 2015 3:18 PM

**To:** [ar.123@mail.com](mailto:ar.123@mail.com); [tdarden@industrialheat.co](mailto:tdarden@industrialheat.co)

**Reply To:** [fabioopenon@iol.it](mailto:fabioopenon@iol.it)

**Subject:** Tests plan

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Dear Sirs,

in the Annex you may find the report 'E-Cat MW1 Energy Plant in Miami: Tests plan', concluding the first module ( see proposal E-Cat MW1 Energy Plant in Miami: evaluation of the energy multiple' )  
I am at your disposal for any clarifications.

Sincerely

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IH-00019107

FILED - MAY 11 2017  
CLERK OF DISTRICT COURT  
MIAMI, FLORIDA

Fabio Penon

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