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Received: (from root@localhost) by tre-vta.valmet.com (8.6.9/8.6.6) id QAA13784; Mon, 20
May 1996 16:45:34 +0300
From: Jim.Hoey@vai-atl.ccmil.valmet.com
Message-Id: <199605201345.QAA13784@tre-vta.valmet.com>
Date: Mon, 20 May 1996 09:06 EET DST
To: elizabeth_drinnon@mail.dnr.state.ga.us
To: ericj@mail.dnr.state.ga.us
Subject: New TAPIO Device Model Amendment
Received: from cc:Mail by tre-vta.valmet.com (cc:Mail/INTERNET-router version 1.4.4)
Mon, 20 May 96 16:45:33 EET DST

From: <Jim.Hoey@vai-atl.ccmil.valmet.com>
To: EPD-TP.Rad(elizabeth drinnon,ericj)
Date: 5/20/96 9:06am
Subject: New TAPIO Device Model Amendment

----- Forwarded with Changes -----

From: Jim Hoey at VAI-ATL
Date: 5/19/96 7:27PM
*To: elizabeth_drinnon@mail.dnr.state.ga.us at INTERNET
*To: eric_jameson@mail.dnr.state.ga.us at INTERNET
Subject: New TAPIO Device Model Amendment

Of course it is Monday morning, and I find a message from the network saying this email had
delivery problems over the weekend! So I'll try again...

May 17, 1996

Georgia Department of Natural Resources Radioactive Materials Program
4244 International Parkway - Suite 114 Atlanta, GA 30354
Attention: Eric Jameson
Subject: TAPIO Technologies - Paper Analyzer

Dear Mr. Jameson,

Valmet Automation (USA) Inc. is requesting an amendment to the device registration of the
TAPIO Paper Variability Analyzer, registration number GA 596-D-111-G. We would like to
add an additional series model (BW-5h23) to the current registration.

The difference between the original device and the new one are: First, a new detector assembly
is being used which is of a semi- conductor design, instead of the photomultiplier type. Second,
due to the new solid state detector, a larger source activity for this model is possible.

Enclosed you will find graphical drawings of the new device including the new detector assembly, as well as radiation patterns to support the new device design and the new source activity of 500 mCi of Promethium 147. This is Amersham source model PHC.C1, as is the previous source capsule designated for this device.

We also request that you amend our Georgia Radioactive Material License number GA 458-3G in order to add this new series model of the TAPIO device.

Enclosed with this request is a check for both the device amendment and the license amendment fees in the total amount of \$1590. If there is any further information that you require, you may contact my office by direct dial at 770-246-7218.

Sincerely,
VALMET AUTOMATION (USA), INC.

James L. Hoey, Jr.
Radiation Safety Officer

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(1.38.193.4/16.2) id AA06442; Wed, 22 May 1996 18:16:11 +0300
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ericj@mail.dnr.state.ga.us; Wed, 22 May 1996 18:20:13 +0300
From: Jim.Hoey@vai-atl.ccmil.valmet.com
Message-Id: <199605221520.SAA28749@tre-vta.valmet.com>
Date: Wed, 22 May 1996 10:46 EET DST
To: ericj@mail.dnr.state.ga.us
Subject: TAPIO - Aperture Sizes
Received: from cc:Mail by tre-vta.valmet.com (cc:Mail/INTERNET-router version 1.4.4)
Wed, 22 May 96 18:20:12 EET DST

From: <Jim.Hoey@vai-atl.ccmil.valmet.com>
To: EPD-TP.RAD(ericj)
Date: 5/22/96 10:46am
Subject: TAPIO - Aperture Sizes

Eric,

This letter is regarding the difference in radiation dose rates between the original 200 mCi Pm-147 source versus the new 500 mCi Pm-147 source, measured with the shutter in the "open" position, on the TAPIO analyzer devices BW-2h55 and BW-5h23.

There are different aperture sizes used for each source. The 200 mCi can use a 5mm, 10mm, or 15mm opening. The 500 mCi uses either a 2mm or 5mm opening.

This can create the situation where there is a "lower" dose rate when using a larger source combined with a smaller aperture.

Please let me know if you have any further questions on this or other related issues.

Best regards,

Jim

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(1.38.193.4/16.2) id AA15973; Thu, 23 May 1996 00:35:58 +0300
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May 1996 00:40:01 +0300
From: Jim.Hoey@vai-atl.ccmil.valmet.com
Message-Id: <199605222140.AAA14580@tre-vta.valmet.com>
Date: Wed, 22 May 1996 17:24 EET DST
To: ericj@mail.dnr.state.ga.us
Cc: tom_hill@mail.dnr.state.ga.us
Cc: Tapio.Makkonen..FAX#.9@vai-atl.ccmil.valmet.com,
011-358-0-4354-3131@atl-fax.ccmil.valmet.com
Subject: Re: Tapio device evaluation, Model BW-5h23
Received: from cc:Mail by tre-vta.valmet.com (cc:Mail/INTERNET-router version 1.4.4)
Thu, 23 May 96 00:40:01 EET DST

From: <Jim.Hoey@vai-atl.ccmil.valmet.com>
To: EPD-TP.RAD(ericj)
Date: 5/22/96 5:24pm
Subject: Re: Tapio device evaluation, Model BW-5h23

Eric,

In response to the questions raised today, and notated in your previous message to me, TAPIO Technologies has been notified of the requirements to complete the device registration amendment.

New radiation dose rate patterns will be performed in Finland next Monday, 5/27, with a properly calibrated survey meter. If it is a different instrument than that for which you presently have a calibration certificate, you will also receive a new certificate showing the calibration date.

Note that there is no 15mm aperture in the BW-5h23 device. It only contains a 2mm and a 5mm. The survey patterns were, and will be, performed with the 5mm aperture for this unit.

We hope this answers all questions, and will forward this new information (patterns) to your office on Tuesday, 5/28.

Best regards,

Jim Hoey

CC: EPD-TP.RAD(tom hill),EPD-TT.SMTP("Tapio.Makkonen.....

Received: from tre.valmet.com by gate.valmet.com with SMTP
(1.38.193.4/16.2) id AA00853; Fri, 24 May 1996 17:41:34 +0300
Received: (from root@localhost) by tre-vta.valmet.com (8.6.9/8.6.6) id RAA00962 for
ericj@mail.dnr.state.ga.us; Fri, 24 May 1996 17:45:40 +0300
From: Jim.Hoey@vai-atl.ccmil.valmet.com
Message-Id: <199605241445.RAA00962@tre-vta.valmet.com>
Date: Fri, 24 May 1996 10:32 EET DST
To: ericj@mail.dnr.state.ga.us
Subject: TAPIO Device
Received: from cc:Mail by tre-vta.valmet.com (cc:Mail/INTERNET-router version 1.4.4)
Fri, 24 May 96 17:45:39 EET DST

From: <Jim.Hoey@vai-atl.ccmil.valmet.com>
To: EPD-TP.RAD(ericj)
Date: 5/24/96 10:32am
Subject: TAPIO Device

Good morning Eric,

I have just sent to you a 12 page FAX with the latest radiation patterns for the TAPIO BW-5h23 device. There is also a functional description of the device, and a copy of the calibration certificate for the Smart ION survey meter.

Two comments:

1. There are two patterns with the shutter open on the 7 mg/cm² window. One is with the 2mm aperture and the other is with the 5mm aperture.
2. There is a typographical error in the functional description. It states that the 500 mCi unit has a 2mm and a 10mm aperture disc, but in actuality there is only a 2mm and 5mm aperture disc installed in the BW-5h23.

Please call my office if you have any further questions.

Regards,

Jim Hoey

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(1.38.193.4/16.2) id AA14074; Wed, 29 May 1996 18:51:05 +0300
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ericj@mail.dnr.state.ga.us; Wed, 29 May 1996 18:55:01 +0300
From: Jim.Hoey@vai-atl.ccmil.valmet.com
Message-Id: <199605291555.SAA18793@tre-vta.valmet.com>
Date: Wed, 29 May 1996 11:39 EET DST
To: ericj@mail.dnr.state.ga.us
Subject: Re: Tapio BW-5h23 device registry
Received: from cc:Mail by tre-vta.valmet.com (cc:Mail/INTERNET-router version 1.4.4)
Wed, 29 May 96 18:55:01 EET DST

From: <Jim.Hoey@vai-atl.ccmil.valmet.com>
To: EPD-TP.RAD(ericj)
Date: 5/29/96 11:39am
Subject: Re: Tapio BW-5h23 device registry

Eric,

I have asked for confirmation of these question by TAPIO. We should receive an answer by tomorrow morning.

Regards,

Jim

Reply Separator

Subject: Tapio BW-5h23 device registry
Author: ericj@mail.dnr.state.ga.us at INTERNET
Date: 5/28/96 5:13 PM

Jim --

This correspondence confirms receipt of the items mentioned in phone conversation this afternoon (5/28/96, ~15:30 hrs. My interpretation of the received information is as follows:

Question 1: What is the ANSI classification of the BW-5h23?

Answer 1: As per "Application to AECB for . . .," dated 10/27/95, the classification is ANSI - 12 - 599 - 999 - R1. Since the application for registration in GA is the same conditions, and the radiation profiles submitted with the registry are nearly identical to those submitted to AECB, the above classification is appropriate.

Question 2: What is the definition of the terms, "strip positions," as listed on the radiation profiles?

Answer 2: As per phone conversation, you mentioned that the strips are guide strips and/or rollers that hold the paper in the appropriate position for all the sensors, most of which do not contain radioactive material. They were removed during the radiation profiles to allow measurements to be made at the iso-distance positions. During normal operating conditions, these strips would be in a fixed position, helping block access to the radiation field.

Question 3: Since the BW-5h23 has independent shutter and aperture disks, what is the size of the shutter opening?

Answer 3: As per drawing # 5TBW3-17-4M, the diameter of the shutter opening could either be 10 mm or 2.5 mm.

When asked regarding the lack of data in one of the radiation profiles -- Window = 7 mg/cm², Shutter =

Open, Strips in Upmost Position -- you responded that it appears that the operator overlooked filling in the "< 1 uSv/hr" in the boxes, seeing that the other profiles were filled in appropriately. Please obtain confirmation of this from the technician.

Please provide a clarification for Answer 3, as I was under the impression that there was only one shutter opening for the BW-5h23. In the morning, I will continue to search for more information regarding the shutter.

If you have any questions, please call the Department or send e-mail.

Regards,

Eric Jameson