

USNWG ON TAXIMETERS DECEMBER 11, 2013 WEB-CONFERENCE SUMMARY

Contents

- I. Carry-over items1
 - A. Point of Sale System Definition.....1
 - B. Proposal to add new requirement S.1.1.1. Recording Elements3
 - C. Proposal to amend S.1.9. Recorded Representation 10
 - D. Proposal to amend paragraph S.1.2. 14
- II. Additional items 17
- III. Attendance..... 17

The USNWG members in attendance were informed that it is anticipated that the work group’s meeting summaries will be posted on the NIST Office of Weights and Measures (OWM) website in the near future. For this reason, all USNWG members are requested to review the draft summaries for accuracy and respond with any comments to the NIST Technical Advisor. This vetting will be part of an editorial review process necessary to eventually publish these documents.

I. Carry-over items

A. Point of Sale System Definition

This proposed amendment to the existing definition of “point-of-sale system” in the NIST Handbook 44 (HB44) Appendix D is being proposed to clarify the meaning of the term

Background:

The USNWG has had discussions during several meetings since September 2012 regarding this issue. These discussions were part of the USNWG attempts to establish what components, when used in conjunction with each other in a taximeter system would constitute a point-of-sale system (POS). A major element associated with this issue that was addressed during previous USNWG meetings was the development of a requirement for a recording element to be a mandatory part of a taximeter system by classifying the system as a POS. During a work group meeting in July 2013 however, the members agreed to discontinue any effort to amend the existing definition in NIST Handbook 44

(HB44) for a point-of-sale system for the specific purpose that the revised definition could then be applied to a taximeter system as a means to require a recording element as part of that system.

The work group also agreed at that time however, that the existing definition for point-of-sale systems in HB44, Appendix D should be amended to make that term more clearly understood and more suitable to apply to all types of weighing and measuring devices. Acknowledging that a substantial amount of the work group's time had been devoted to the development of a proposal to amend this definition, the USNWG agreed that this agenda item should not be discarded completely but rather that it should be given further attention by the work group to further clarify the term.

Since POS systems are found in association with many different types of weighing and measuring devices, the physical hardware components used to accomplish the functions of a POS may be significantly different depending on what type of weighing or measuring device they are attached to. The POS system used in conjunction with a motor fuel dispenser may serve the same general purpose as a POS attached to a checkout scale in a retail market however, the physical hardware used in these systems can differ.

During the September 18, 2013 USNWG meeting, the work group agreed that the following draft of proposed amendments to the existing definition for POS should be supported by the group.

point-of-sale system. – An assembly of **interactive** elements ~~connected either wired or wirelessly~~ including a weighing or measuring element, an indicating element, and a recording element ~~(and may also be equipped with a “scanner”)~~ used to complete a direct sales transaction. **The system components, when operated together must be capable of the following:**

- 1. determining the weight or measure of a product or service offered;**
- 2. calculating a charge for the product or service based on the weight or measure and an established price/rate structure;**
- 3. determining a total cost that includes all associated fees involved with the transaction;**
- 4. providing a printed sales receipt when required by either buyer or seller. For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (e.g., e-mail, text message, computer file).**

(Amended 201X)

This draft proposal agreed upon at the September 2013 meeting includes one additional change that the work group recommended during that meeting that deletes the wording “when required by either buyer or seller” from bullet point number 4 in the draft proposal.

Discussion:

The work group was asked to indicate whether they support the draft proposal shown above. The majority indicated that they did support this draft. Mr. Stan Toy stated however, that the use of the term “computer file” in the final sentence, under number 4 of the proposed changes did not seem appropriate. Mr. Toy stated that a more suitable replacement for that term would be “electronic file” or “digital file.”

Conclusion:

This suggested change was presented to the participants of the meeting and they were asked again to indicate their level of support for the proposal. All work group participants indicated their support for this draft after this final change was enacted. It was agreed that the proposed change as shown below will be submitted as a recommended change to NIST Handbook 44 (HB44) Appendix D – Definitions.

point-of-sale system. – An assembly of **interactive** elements including a weighing or measuring element, an indicating element, and a recording element (~~and may also be equipped with a “scanner”~~) used to complete a direct sales transaction. **The system components, when operated together must be capable of the following:**

- 1. determining the weight or measure of a product or service offered;**
- 2. calculating a charge for the product or service based on the weight or measure and an established price/rate structure;**
- 3. determining a total cost that includes all associated fees involved with the transaction;**
- 4. providing a printed sales receipt. For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (e.g., e-mail, text message, electronic file).**

(Amended 201X)

B. Proposal to add new requirement S.1.1.1. Recording Elements

The addition of this new requirement would require that a recording element be included as a mandatory component within a taximeter system.

Background:

After a number of discussions in previous USNWG meetings regarding a proposal to require a recording element in a taximeter system, the work group was presented with a choice of two approaches to accomplish this objective. At their July 2013 USNWG meeting, the work group considered the merits of these approaches.

During the September 2013 meeting of the USNWG, the NIST Technical advisor explained to the USNWG that the proposed amendments to S.1.9. Recorded Representation became excessively complicated to draft and added that those changes would result in a convoluted requirement that was difficult to understand. This was due to the multiple effective dates (i.e., dates that determine what individual segments of this requirement would be enforced) associated with the various non-retroactive portions of that requirement.

At that time, the members agreed to pursue efforts to add the new requirement S.1.1.1. Recording Elements, rather than to amend the existing S.1.9. Recorded Representation as shown below.

S.1.1.1. Recording Elements. – A receipt providing the required information in S.1.9. Recorded Representations shall be available through an integral or separate recording element for all transactions conducted when any of the following criteria is met:

- a) When the regulatory authority requires that a receipt be provided to the passenger;**
- b) When extras permitted exceed those charges for additional passengers or transportation of luggage;**
- c) When the rate applied is permitted to change for any reason after the initiation of, and prior to the conclusion of a trip;**
- d) When the total charges include fees for products or services not directly associated with the service of transportation of the customer.**

For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (e.g., e-mail, text message, computer file).

[Nonretroactive 20XX]

(Added 20XX)

During USNWG discussions at the September 2013 meeting, certain deficiencies in the draft proposal to add a new S.1.1.1. were identified, including the following points.

Mr. Phillip Steiner noted that taximeters manufactured today all have the ability to calculate fares using more than one rate although not every jurisdiction that they will operate in will permit the use of multiple rates. Mr. Steiner questioned whether this requirement will be applied to a taximeter only during the type evaluation phase or will it be applied equally during field examinations. If applied during type evaluation, all devices will be required to undergo testing for compliance while attached to a recording element. However, when this requirement would be applied during field examinations, would there be any option for the inspector to provide exemptions from this requirement for taximeters operating in a jurisdiction that does not permit more than a single rate?

Mr. Bill Fishman recommended that the work group be selective about the wording of this requirement so that it is clear whether the requirement applies to a taximeter that is *capable* of

operating with multiple rates or should it only apply to taximeters that are actually *programmed* to operate using multiple rates. It was noted that this multiple rate feature is a sealable function and that whether it is enabled or not would depend on the regulations in the jurisdiction where the taximeter is placed in service.

Mr. Steiner also noted that the composition of this requirement must be clear to specify whether the requirement for a recording element will apply to any taximeter system that is capable of calculating fares at multiple rates or whether it will specifically only apply to taximeters that will calculate at different rates during a single transaction.

Discussion:

The work group was asked to review the following drafts incorporating these recent comments. The first draft presented to the USNWG is a specification requirement that would require a receipt except in those taximeters which meet the following two parameters:

- 1) those capable of only calculating fares at a single rate during a transaction; and
- 2) those that do not accumulate extras or additional charges other than for additional passengers and baggage.

This proposed specification requirement is shown below.

S.1.1.1. Recording Elements. – A receipt providing information as required in S.1.9. Recorded Representations shall be provided by a taximeter or taximeter system through an integral or separate recording element for all transactions conducted.

This does not apply to taximeters or taximeter systems that are limited to indicating and accumulating charges exclusively for discrete, individual fares calculated at a single rate and, that do not indicate or accumulate extras or additional charges (other than those assessed for transporting additional passengers and baggage).

For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (e.g., e-mail, text message, computer file).

[Nonretroactive January 1, 201X]

(Added 201X)

The USNWG was advised that this proposed requirement will address the design of a taximeter and will exempt those that are not capable of operating using multiple rates and accumulating additional charges and multiple extras other than for additional passengers and the transportation of luggage.

An important point to be made is that a specification requirement has a prominent role at the time which a device is undergoing type evaluation. The type evaluation will certify that the device will operate according to the manufacturer's design using the criteria in specification requirements. The

type evaluation however, will not encompass how any individual device may be operated once it is placed in service. A taximeter may be equipped with a variety of features although some may not be enabled when placed in service due to customer's needs and regulations within the jurisdiction where the device is operated.

It was also noted that because the existing HB44 Taximeters Code does not include a requirement stating that a taximeter must provide a receipt, this proposed requirement would be submitted as a nonretroactive requirement which would "grandfather" all taximeters manufactured and installed prior to the effective date assigned to the requirement.

Mr. Stan Toy raised some concerns over this proposal based on the following questions:

- Can a taximeter be type approved either with or without the capability of generating a receipt, and if so how does the field inspector know if a particular device has been approved for use with a printer?
- If a taximeter is submitted for type evaluation and not evaluated for use with a printer will this be noted on the CC?
- What happens when a field inspector encounters a taximeter in the field that is attached to a printer however, the CC does not specifically list this as a feature that it was evaluated for?
- Would a taximeter manufacturer need to submit more than one device for type approval? One of the sample devices submitted would be evaluated with a recording element and one without.
- Stating that within his area of responsibility there are several different jurisdictions that may or may not permit multiple rates to be used. In these situations, Mr. Toy questioned how a field inspector will know if a taximeter will need to be attached to a recording element. For a field inspector, will it be possible to look at a model number and determine whether or not a printer is required?

In response, Mr. Fishman stated that some manufacturers will submit different variations of models of devices for evaluation however; present day taximeters are typically (if not always) submitted as being capable of calculating fares using multiple rates. If this proposal is incorporated in HB44 and NCWM Publication 14, a multi-rate taximeter when it is type evaluated, would be tested with this feature enabled. If the taximeter is approved through that type evaluation, it would be issued a Certificate of Conformance (CC) that could state when the taximeter is placed in service where multiple rates are permitted, then a recording element would need to be included as part of that system. And, according to the proposed amendment, if this taximeter is placed in service where the use of multiple rates is not permitted, then a recording element may not be required.

Mr. Fishman added that if the design of a taximeter is such that a recording element may be attached, the taximeter would be submitted for type evaluation either with a dedicated recording element or with instructions from the manufacturer that the taximeter may be connected to a general-use type of recording element. He also stated that NTEP would not likely require that

additional taximeters be submitted for the evaluation. He added that it is the decision of the manufacturer to specify what criteria their device is to be evaluated upon.

Mr. Fishman further stated that the evolution of taximeters seems to be moving towards a design that will be used with a separate printer rather than having an integral printer. The reason for this trend may be that separate printers are easier to make repairs to and simple to replace if needed. This is a potential problem however, if the printer is easily unplugged from the taximeter. Taxi drivers may simply unplug the printer and claim that it is broken to avoid giving a receipt, thereby evading any official record of the transaction.

The work group acknowledged that the ability to calculate fares using multiple rates would need to be a sealable feature. That is, to either enable or disable this function, a type of security seal (physical or electronic) would need to be broken. This would provide assurance that a device user would not be capable of turning this function on and off without detection.

Additional concerns regarding the ability of taximeters to calculate fares at multiple rates were expressed by some members of the work group. Mr. Fishman stated that the easiest way to commit fraud with taximeters that have this feature is for the operator to simply apply the incorrect rate at the beginning of the trip. This is of course a concern even for those taximeters that are incapable of calculating an individual fare using multiple rates. With this in mind, Mr. Fishman recommends that any taximeter that has the ability to use more than one rate (either within a single fare or from one transaction to the next) should be required to produce a receipt.

During a previous USNWG discussion, Mr. Fishman stated that he was unaware of any prominent taximeter manufacturers that are currently producing devices that operate with the ability to calculate fares at only one rate. If indeed there are no single-rate taximeters are being produced, then to provide an exemption for that type of taximeter would be meaningless. The work group recognized that if this premise is valid, it may be unnecessary to include in this proposal any exemptions for requiring taximeters to be equipped with a recording element.

Ms. Aileen Fox questioned the use of language in the second paragraph of the proposed requirement "*This does not apply to taximeters or taximeter systems...*" She stated that the use of this wording in the proposed S.1.1.1., could create a situation where the regulatory authority may not retain the ability to require a printer if the taximeter is used in an area with a simple rate structure. There was some discussion from the work group which suggested changing that particular sentence to: "*This may not apply to taximeters or taximeter systems*" ...

The NIST Technical Advisor explained that there are numerous instances where a regulatory agency will apply requirements that exceed what the requirements provided in HB44 require. The work group generally agreed that this would be an inappropriate change that would alter the intent of providing these exceptions to the proposed requirement.

Mr. Bob McGrath questioned whether the wording of the second paragraph in this proposed requirement could be amended so that it is more easily understood. Mr. McGrath suggested that the structure of this requirement could be improved by isolating the elements contained in the second paragraph through the use of bullet points. The NIST Technical Advisor displayed for the work group some additional edits affecting the second paragraph of the proposal to simplify the language. These edits were made to reflect the recommended structural changes to the paragraph resulting in the following revised draft proposal.

S.1.1.1. Recording Elements. – A receipt providing information as required in S.1.9. Recorded Representations shall be provided by a taximeter or taximeter system through an integral or separate recording element for all transactions conducted. This does not apply to taximeters or taximeter systems that are:

- a) **limited to indicating and accumulating charges exclusively for discrete, individual fares calculated at a not designed to calculate any fare for a single rate transaction using more than one rate; and**
- b) **that do not indicate or accumulate extras or additional charges (other than those assessed for transporting additional passengers and baggage),**

For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (e.g., e-mail, text message, computer file).

[Nonretroactive January 1, 201X]

(Added 201X)

The work group generally agreed with the structural changes to the proposed requirement shown above.

Mr. Byron Corcoran expressed concern over the fact that exemptions granted for a limitation of extras charges specifically targeted those two extras listed in this draft. He further stated that there are taximeter services in operation that allow extras charges other than those for additional passengers and transportation of baggage but would not comprise what he would considered a complex rate structure. In some jurisdictions, taxi services may include extras for tolls (for example) but will not allow for extras charges for additional passengers and baggage. Mr. Corcoran stated that this example should not be viewed as a complex rate structure and that it seems to be an arbitrary decision to allow an exemption for the extras charges of additional passengers and baggage but not for other types of extras charges.

Mr. McGrath stated that it is his understanding that the two extras charges specified in this proposal were included in this draft proposal because they are specifically listed in the definition of the term “extras” in HB44 Appendix D – Definitions. He added however, that he believes HB44 requirements should be drafted in a generic sense that will allow some flexibility for local authorities to apply requirements in a sensible manner within their jurisdiction.

The NIST Technical Advisor noted that if any extras charges are to be allowed before the system is required to include a recording element, there must be some limit applied so that the rate structure does not become overly complicated. The work group did not agree on where any distinction should be made in order to minimize those extras charges for which an exemption would be granted.

The draft for a new Users Requirement to accompany the above specification requirement was presented to the USNWG to consider. This proposed requirement specifies that taximeters that *operate* by calculating the fare using more than a single rate are required to issue a printed receipt. This user requirement would serve to bridge any gap in regulation between taximeters that are capable and enabled to operate in this manner from those that are capable of operating but are not enabled. The USNWG was reminded that it is believed that this feature is present in most, if not all taximeters manufactured today and that it is a sealable parameter enabled during the initial installation and programming of the taximeter.

The proposal of this new user requirement is being offered for consideration by the USNWG to address the manner in which a taximeter is operated rather than the way in which it is designed. The option of an electronic receipt is provided in this requirement as well.

UR.3 Use Requirements

UR.3.1. Recording Element. – Taximeters or taximeter systems that operate by calculating the fare for any individual transaction using more than one rate for distance and/or time, shall issue a printed receipt providing information as required in S.1.9. Recorded Representations.

For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (e.g., e-mail, text message, computer file).

[Nonretroactive January 1, 201X]

(Added 201X)

Conclusion:

USNWG members were asked to review and comment on the proposed new specification and user requirements shown above. Some members of the USWNG support the latest revision of the proposed specification requirement (S.1.1.1.) which provides for exemptions of those taximeters/systems using a simple rate structure, and others support eliminating the exemptions provided in S.1.1.1. having the effect of requiring all taximeters/systems to be equipped with a recording element. No further comments were heard regarding the user requirement (UR.3.1.).

Due to time constraints and in an effort to move this item forward, the NIST Technical Advisor tabled the discussion on this item at this time and informed the work group that a ballot would be

sent out with the meeting summary. This ballot would ask the USNWG members to respond with an indication for which of the following options they support:

- a) retain the latest revision of S.1.1.1. that includes two criteria required for an exemption. These criteria are that the taximeter operates by calculating fares at only a single rate during any individual transaction, and that the taximeter does not register extras charges, other than those for additional passengers and luggage;
- b) elimination of the exemption for single rate/single fare but retaining an exemption for the limited use of certain extras charges;
- c) elimination of the exemption from a required receipt for taximeters with extras limited only to those for additional passengers and luggage but retaining an exemption for taximeters that operate using only one rate per transaction;
- d) retaining both conditions for exemption but revising the bullet point (b) under the latest draft of S.1.1.1. to state that an exemption is provided for those taximeters that are limited to a small number (e.g. 2-3) of extras charges; or
- e) elimination of all exemptions nonretroactively (i.e., all newly manufactured taximeters must be generate a receipt).

C. Proposal to amend S.1.9. Recorded Representation

This proposal would amend the existing specification requirement S.1.9. Recorded Representation by amending three of the existing bulleted items in the paragraph and adding three new bulleted items. In addition, two new notes would be added to this requirement indicating that the recording element may be an integral component within a taximeter or a separate element in a system and, providing an option for electronic forms of receipts. The addition of the note stating that the recording element may either be housed within the taximeter or exist as a separate component will eliminate the need for this statement currently contained in the main paragraph of the requirement.

Background:

Consideration of changes to the required receipt data contained in the bullet points in this existing requirement by the work group began during its September 2012 meeting. Further discussion on these changes by the USNWG took place during the July 10, 2013 meeting and included proposals to address the following issues:

- The provision to issue a receipt in electronic form was supported by the work group. This would depend however, on the ability of the taxi operator to provide such a receipt and the acceptance of the same by the passenger;
- A change to bullet point “f” to eliminate the wording “for multi rate taximeters.” This language was considered to be obsolete in that it is believed that all taximeters on the market will now have the ability to calculate fares at more than one rate;

- Rewording of bullet point “h” to indicate that the total cost of the service provided (including extras charges and other additional charges) is the appropriate information that is required; and
- To eliminate any language that can be interpreted to require that the owner/operator’s personal contact information be included on a receipt.

During the September 18, 2013 USNWG meeting, the work group reviewed this draft and had additional comments and concerns. One of those changes was the elimination of proposed language added during the September 2012 USNWG meeting in bullet point “g” that indicated that it would be optional whether extras and other additional charges are to be identified and itemized on a receipt. Other changes agreed to by the group at that meeting included the following.

- Amend the bulleted item “g” to reflect more current types of communication services that may be offered during a taxi ride. The work group agreed that “telecommunication” should replace the reference to “telephone use.”
- Because the USNWG had previously agreed that additional passengers and the transportation of baggage were exceptions to a requirement that extras charges be itemized on a receipt, it was proposed that the language under bulleted point “g” be amended to reflect this.

These recommended changes have been incorporated into the draft proposal and are shown below.

S.1.9. Recorded Representation. – A printed receipt issued from a taximeter, ~~whether through an integral or separate recording element~~, shall include the following:

- (a) date;
- (b) unique vehicle identification number, such as the medallion number, taxi number, vehicle identification number (VIN) or permit number;*
- (c) start and end time of trip;*
- (d) distance traveled, maximum increment of 0.1 kilometer (0.1 mile);*
- (e) fare in \$;
- (f) ~~for multi rate taximeters~~, each rate at which fare was computed and the associated fare at that rate;*
- (g) additional charges in \$ where permitted such as extras (**except those for additional passengers and luggage**), surcharge, ~~telephone use~~**telecommunications**, tip and tax shall be identified and ~~may be~~ itemized ~~when required under local jurisdiction~~;* ~~and~~
- (h) total fare charge for service in \$ (~~total charges~~**sum of fare, extras, and all additional charges**);*
- (i) any credits or discounts in \$ applied to the fare;**
- (j) trip number, if available** and
- (k) telephone number (or other contact information) for customer assistance**

[Nonretroactive as of January 1, 1989] *[Nonretroactive as of January 1, 2000] ****[Nonretroactive as of January 1, 201X]**

(Added 1988) (Amended 1999 **and 201X**)

Notes:

The recording element may be an integral element housed within the taximeter or it may be a separate component in a taximeter system.

For systems equipped with the capability to issue an electronic receipt, the customer may be given the option to receive the receipt electronically (e.g., e-mail, text message, computer file).

The USNWG will be asked to review the changes shown above and determine if this proposal is sufficiently developed to be submitted for consideration by the NCWM.

Discussion:

The NIST Technical Advisor to the USNWG presented the work group with the most recent draft of proposed changes to S.1.9. and the members were asked for comments. Mr. Toy stated that the use of the term “computer file” could be misinterpreted and suggested changing that to “electronic

(or digital) file” instead. The work group agreed with this change. Mr. Toy also asked why, under bullet point (d) the total distance traveled is to be included on the receipt although there is no similar requirement for the total time that may be used to calculate fare charges. The work group acknowledged that a start and end time for the trip is required however, this will not provide specific information regarding fare charges calculated on the basis of time.

Mr. Fishman stated that it is his understanding that a taximeter is not capable of providing that specific information due to the manner in which the device determines fare charges on distance and time. He explained that the taximeter will typically switch between the calculation of fare based on distance traveled and fare based on time during the trip depending on the cross-over speed. Mr. Byron Corcoran added that while there is no requirement in HB44 for a taximeter to register or indicate the time interval(s) used to calculate fare charges, it would be possible for a (Centrodyne) taximeter to be programmed to do so.

Mr. Fishman noted that because there has not been a designation in the type evaluation process for the verification of this function, if this feature was to be provided, it would be necessary to incorporate such an element in the NTEP process.

The work group was asked to indicate their support for adding “time charges” as an additional bullet point under S.1.9. The response was that only two of the meeting participants were in favor of this action at this time however, some members stated that this may be something to be added at a point in the future.

One additional element to include under S.1.9. that the work group has indicated support for is to include the taxi’s company name. Although the NIST Technical Advisor initially presented this additional data item as a separate bulleted item under S.1.9., some members of the work group indicated that this should be included as an element within the existing bulleted item (b). This would require the company/owner’s identification in conjunction with the vehicle identification.

Ms. Fox explained that two taxi cabs owned by different companies and based in different regulatory jurisdictions may coincidentally be assigned the same vehicle number or other identifier (e.g., medallion number). In some instances they can be located within a relatively small geographic area and these two taxis may operate within the same jurisdiction at any given time. In this example, unless some identifier is included with a vehicle number, regulatory officials (and passengers) would have a difficult time distinguishing between them. Since the two cabs may provide service in the same jurisdiction, the use of the company/owner’s name with the vehicle identification number would serve to positively identify the vehicles for the regulatory officials.

Mr. McGrath stated that while this may be beneficial under certain circumstances, in large metropolitan areas the fleet of cabs under a single ownership may include hundreds of vehicles. In these cases, the company’s name will not provide any significant assistance in identifying a particular vehicle. It should therefore be left up to the local jurisdictions to establish any additional information needed on a printed receipt.

Mr. Corcoran agreed and suggested that the requirement for this additional information could be optional by drafting the requirement in a non-specific manner. He suggested that in S.1.9. bulleted item (b), could be amended to state: "unique vehicle/company identification, such as medallion number, taxi number, ..."

One additional change was suggested that would add the wording "if any" following "Additional charges" under bulleted item (g).

Conclusion:

The USNWG members supported the change of wording from "computer file" to "electronic file" in the final note under S.1.9. This change will be made the proposed amendment. The members also agreed that the wording "if any" should be added to the sentence under item (g).

The work group generally agreed that in certain cases the use of the company/owner's name would be beneficial and should therefore be added to the data required under S.1.9. however, the members at the meeting did not agree upon the manner in which this data should be incorporated into the requirement.

The NIST Technical Advisor will include the proposed addition of the taxi company/owner's name to the data required in paragraph S.1.9. in a ballot that will be circulated with this meeting's summary. The USNWG will be asked to respond with an indication of their support for various options in the format which this data is incorporated.

D. Proposal to amend paragraph S.1.2.

This proposal would amend S.1.2. Advancement of Indicating Elements so that certain fare indications would be permitted to advance by means other than the movement of the vehicle or by the time mechanism.

Background:

The language in the existing requirement does not allow for fare indications to advance when a flat rate is charged for a trip and then displayed on the primary indicating element. This type of fare that is permitted in some jurisdictions is used for commonly traveled routes such as between airports and a hotel district. The fare in this type of transaction is entered in the taximeter as a fixed charge that is not calculated using factors of distance traveled or time elapsed.

Additionally, it is not clear whether or not this requirement is applicable to the display of charges assessed in addition to fare (e.g., extras and other additional charges). This type of charge is normally applied and displayed independently of vehicle movement or the lapse of time.

The proposal to amend S.1.2. had been discussed by the work group during USNWG meetings held between September 2012 and July 2013. In these discussions, the USNWG agreed that advancement of fare indications should be permitted for transactions involving charges not based

on time and distance measurements. The group also acknowledged that on a typical, stand-alone taximeter, charges that can be assessed during the transportation service provided, other than fare or extras will commonly be displayed on the taximeter's display that is normally reserved for the display of extras charges. It was the consensus of the work group that this requirement should be changed to recognize that extras and other additional charges must be permitted to advance independent of the movement of the vehicle and the lapse of time. The work group agreed that this proposal should therefore make it clear that any non-fare charges displayed may advance through "manual or automatic means."

At the September 2013 USNWG meeting, the NIST Technical Advisor offered a draft proposal to the work group for review and comment. Although changes that the USNWG have supported were incorporated into this draft, the work group noted that one additional change should be made. This additional change involved replacing the term "fees" with "charges." The term "charges" was preferred by the work group believing that it is a more generic description for various additional costs associated with a transaction.

The draft shown below incorporates all changes recommended by the USNWG. The group will be asked to review this draft and determine if this proposal is sufficiently developed to be submitted for consideration by the NCWM.

S.1.2. Advancement of Indicating Elements. – Except when a taximeter is being cleared, the **fare charges displayed on the** primary indicating and recording elements shall be susceptible of advancement only by:

- a). the movement of the vehicle;
- b). by the time mechanism;
- c). **a combination of both a) and b); or**
- d). **the entry of a monetary amount associated with a flat rate or negotiated flat rate where permitted.**

Advancement of the indications for charges, other than fare may occur through manual or automatic means.

(Amended 1988, **and 201X**)

Discussion:

Mr. Toy asked for clarification of what is meant by "flat rates" and what types of charges does this term encompass. He stated that it should be made clear that the ability to enter a flat rate should not be permitted to add to any charges already registered in the taximeter. He also asked how these types of rates are applied (i.e., via a single button programmed to add a fixed value, or using a series of numeric keys to enter a charge).

When asked if the value associated with a flat rate was related to the fare calculated based on distance, Ms. Fox stated that it was her understanding that flat rates were not established through any type of measurement capability of taximeters. Mr. James Cassidy explained that

flat rates had been established to prevent taxi drivers from overcharging visitors to a city by travelling extended routes instead of travelling the most direct route, adding to the measured distance used in the fare calculation.

It was pointed out by several work group members that this type of charge could be entered into the taximeter through either of the ways noted above. That is, specific monetary values may be entered as flat rates by activating a single button programmed to input that value, or a numeric keypad could be used to enter random values for use in a negotiated flat rate.

The work group discussed the possibility of a flat rate being entered into the taximeter and then having that charge intentionally changed. The work group generally agreed that although there may be legitimate reason for doing so, this ability would create an obvious opportunity for fraud.

This ability to commit fraud in this manner could however be mitigated through the development of a definition for a flat rate that indicates that the flat rate charge is determined prior to the start of a trip. Since there is no existing definition for the term in HB44 Appendix D – Definitions, it may be necessary to establish that definition at the time that this proposed amendment is submitted for consideration by the NCWM.

Another point made during this discussion was that under current HB44 requirements, time/distance rates, along with flat rates must be posted on the rate card. Ms. Fox added that in some cases, information regarding flat and negotiated flat rates is being made available to the passenger through a passenger information monitor (PIM).

Mr. Fishman added that the permitted use of flat rates which may be applied as a fare charge during a single trip will lend support to his contention that any taximeter capable of applying more than one rate should be required to generate a receipt. He explained that if a jurisdiction only allows a single fare to be calculated based upon a single rate, the work group is proposing that a taximeter system operating in this jurisdiction would not require a printer. But if this same jurisdiction allows flat rates as an option for one of the rates available, the application of that flat rate should always be required to be clearly identified as a flat rate on a printed receipt.

The NIST Technical Advisor asked the work group to indicate whether or not they support the amendments shown in the draft of the proposed requirement above. A majority of the work group indicated that they do support this latest draft of the proposed amendment to S.1.2.

Conclusion:

The above draft of the proposed amendment to S.1.2. **Advancement of Indicating Elements** will be submitted for consideration by NCWM. Additionally, the USNWG will be asked to review a draft proposal to add a new definition for the term “flat rate” at a future meeting. The NIST Technical Advisor will develop an initial draft for this definition to be considered.

II. Additional items

Due to a constraint of time allotted for the meeting two additional agenda items were not addressed during this meeting. These items: a proposal to amend paragraph **A.1. General**; and a proposal for a new requirement **S.1.3.3. Customer's Indications** will be placed on the agenda of the next USNWG meeting.

The work group was given a brief update on the activity of the GPS Subcommittee which has been primarily to identify a new Chair for that subcommittee. The group has lost its initial member that agreed to take that position and the work from that group has stalled. A new Chair must be named so that this group will be able to establish a routine of scheduled meetings and proceed with its work.

The results of the poll that participants of this meeting were asked to respond to indicated that there were multiple dates in the months of February and March that received an equal amount of votes from the participants. However, to allow sufficient time for USNWG members to respond to the ballot mentioned in items I.B. and I.C. and due to other commitments, it was not feasible to conduct a subsequent meeting of the USNWG on those dates within the month of February. For that reason, March 4, 2014 has been identified as the next scheduled meeting of the USNWG.

III. Attendance

Name	Affiliation	Email
John Barton	NIST Office of Weights and Measures	john.barton@nist.gov
Anthony Bong Lee,	County of Orange	Bong.lee@ocpw.ocgov.com
Jimmy Cassidy	City of Cambridge, MA	jcassidy@cambridgema.gov
Byron Corcoran	Centrodyne	byron@centrodyne.com
Bill Fishman		bfishman@nycap.rr.com
Aileen Fox	NYC Taxi and Limousine Commission, Legal Department	foxa@tlc.nyc.gov
Angela Godwin	County of Ventura, CA	angela.godwin@ventura.org
Viktor Gruber	Inspector Weights and Measures City and County of San Francisco	viktor.gruber@sfdph.org
Taila Martin	Windels Marx Lane & Mittendorf, LLP	tmartin@windelsmarx.com
Kevin McDonald	City of Chicago, IL	Kevin.McDonald@cityofchicago.org
Bob McGrath	City of Boston, MA	Robert.McGrath@CityofBoston.Gov
Stan Toy	Santa Clara Weights and Measures	Stan.toy@aem.sccgov.org