Log of Meeting

Subject: ASME A17/B44 Escalator and Moving Walk Committee

Date of Meeting: October 6 & 7, 1997

Place: Holiday Inn, Essington, PA

Log Entry Source: Scott Snyder, ESME (x1317)

Date of Entry: October 14, 1997

Commission Attendees: Scott Snyder, ESME

Non-Commission Attendees: See Attendance List (to follow, when available from ASME)

Summary of Meeting:

See Meeting Agenda (Attached)

Meeting Minutes (to follow, when available from ASME)

`odes and Standards

ASME International

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Note: The Attachment #'s in this Agenda refer to the Attachments in the Minutes of the August 1997 meeting

AGENDA

A17/B44 Escalator & Moving Walk Committee

Holiday Inn
45 Industrial Highway
Essington, PA 19029
(610) 521-2400

Monday, October 6, 1997, 9:30 am - 6:00 p.m.
Tuesday, October 7, 1997, 8:30 am - 5:00 p.m.

1 CALL TO ORDER

The meeting will be called to order at 9:30 am on Monday, October 6, 1997.

2 RECORD OF ATTENDANCE

3 ANNOUNCEMENTS

4 ADOPTION OF AGENDA

5 APPROVAL OF AUGUST 26-27, 1997 MINUTES

6 PERSONNEL

The following Escalator and Moving Walk Committee personnel actions have been submitted to the Main Committee for action at their September 1997 meeting:

Scott Snyder	Appoint as Member of the Escalator and Moving Walk Committee
Terry Caster	Terminate as Member of the Escalator and Moving Walk Committee

Attachment 1 contains the committee roster.

7 REQUESTS FOR INTERPRETATION

7.1 Inquiry 97-26 (Attachment 2a)

Committee: Escalator and Moving Walk

Subject: Section 805
Escalator Phase Reversal

Edition: A17.1-1996

Question(s):

The A17.1 Code requires phase reversal protection of elevators but does not require it of escalators. The National Electrical Code does not require phase reversal protection for either. Please explain why escalators do not need this protection.

Background:

At the August 1997 meeting, the Committee discussed the question and agreed that a reversal stop device (805.3h) would protect against not only a phase reversal but also mechanical overload. It was agreed that if the escalator starts up in the down direction, the phase reversal may not be detected but if it is running, it would be detected and that is what you want to protect against. The Committee concluded that there is adequate protection on the escalator without phase reversal protection.

Mr. Turner agreed to prepare a proposal, based upon the committee discussion, for review by the Committee at their next meeting.

Discussion:

Mr. Turner will report

8 A17/B44 HARMONIZATION

Background:

TRs TABLED FOR HARMONIZATION

TR 96-03a, Comb-Step Impact Device, Rule 805.1u
TR 96-03b, Combplate Impact/Uplift
TR 96-10, Skirt Panel Brush Deflector Device, Rule 805.1w
TR 96-23, Signs on Steps, Risers and Balustrades, Rule 805.2
TR 96-54, Inspection Control
TR 96-55, Escalator and Moving Walk Signage
TR 97-xx, Pit Drains
TR 97-xx, Minimum Distance Between Escalators
TR 97-xx, Protection of Supports & Machine Spaces Against Fire, Rules 801.1 and 901.1 (Inquiry 97-07)
TR 97-xx, Handrail Speed Monitoring Device, Rule 805.4
TR 97-15, Audible Alarms, ~~Rules 905.1b(1), 905.1l, and 905.1m~~

TABULATIONS

The Tabulations listed below were completed at the May 1997 meeting and were subsequently distributed for letter ballot approval to the A17 Main Committee and B44 Technical Committee. The ballot was issued on July 2, 1997 with a closing date of August 13, 1997. A copy of the following balloted tabulations was enclosed with the August 1997 Meeting Agenda.

July 1997 Tabulations
Section 3, Definitions (includes only those definitions assigned to the Escalator Committee)
Part VIII, Escalators
Part IX, Moving Walks
Scope and Section 1105 of Part XI
Appendix G, Recommended Practice for Accelerated Moving Walks

At the August 1997 meeting, the letter ballot for each of the above sections/parts closed on August 13, 1997 and the results were circulated at the meeting. The Committee began by reviewing all of the objections/comments resulting from the July 1997 ballot on the July 1997 draft of Section 3, Definitions pertaining to Escalators and Moving Walks. The Committee then proceeded to review the objections/comments resulting from the July 1997 ballot on July 1997 draft of Part XI, Scope and Section 1105, as well as several general objections/comments resulting from the letter ballot. **Package 1** enclosed with these minutes contains all of the responses developed and unanimously approved (except as described below) by the Committee regarding these drafts. **Packages 2 and 3** contain the 2nd ballot drafts of Section 3 (September 1997) and Part XI, Scope and Section 1105 only (September 1997), respectively. The proposed revisions resulting from the ballot review have been incorporated into these 2nd ballot drafts.

The Committee then reviewed the objections/comments resulting from the July 1997 ballot on the July 1997 draft of Part VIII. Due to the substantial number of objections/comments received, the committee was only able to review up through Rule 805.3k. **Package 4** enclosed with these minutes contains all of the responses developed and unanimously approved (except as described below) by the Committee regarding Part VIII up through Rule 805.3k. **Package 4** also contains the objections/comments on Rules 805.31 to the end of Part VIII, which need to be reviewed at the next meeting. **Package 5** contains the 2nd ballot draft of Part VIII up through 805.3k (October 1997) as well as the first ballot draft beginning at Rule 805.31 (July 1997). The proposed revisions resulting from the ballot review have been incorporated into this 2nd ballot draft.

Package 6 contains all of the objections/comments on Part IX which will be reviewed at the next meeting.

The 2nd ballot drafts are arranged as follows:

Column 1: Column 1 of the 2nd ballot contains a copy of the text from the third column of the first ballot tabulation; however, all underlined text from the first ballot tabulation has been included and all of the "struck through" text from the first balloted proposal has been eliminated, i.e. Column 1 contains a clean copy of the balloted proposal.

Column 2: Column 2 contains proposed revisions to the Column 1 text. All proposed revisions in Column 2 were unanimously approved (except as described below) by the Committee at the meeting as a result of the letter ballot review. Also in Column 2 is a copy of any Column 1 text that resulted in first ballot objections that were not accepted by the Committee. Only those revisions included in Column 2 will be submitted to the A17 Main Committee and to the B44 Technical Committee for a 2nd letter ballot.

Column 3: Column 3 contains all of the Rationale from the first ballot tabulation as well as any proposed changes to the rationale as a result of the ballot review. All proposed new rationale is underlined, all rationale proposed for deletion is "struck through."

All responses/revisions were unanimously approved by the Escalator and Moving Walk Committee except for the following:

- Response to comment submitted by Bialy, Droste, Steel, et. al. on Definition of braking, electrically assisted - 1 abstained {P Welch}.
- Response to comment submitted by E A Donoghue on Definition of escalator wellway - 1 opposed - (G Kappenhagen); 1 - abstained.
- Response to general comment by H Hayes - 1 objection {H Hayes}.
- Response to general comment by A Verschell - 2 abstained {H Hayes, C White}.
- New Rationale added to 802.3f(2) regarding "permanently" - 1 abstained {C White}.
- Response to C E Vlahovic's comment on 802.3d - 1 abstained {T Nurnberg}.
- Revision to 802.4e to decrease the maximum from 1070 mm to 1000 mm - 2 opposed {Hayes, White}.
- Response to C E Vlahovic's comment on 804.3a(3) - 1 abstained - {C White}.
- Revision to 802.5a(3) - 2 opposed {C White, H Hayes}.
- Response to C Dwyer on Clause 8.6.7 - 1 abstained.

Also note that the Committee responded to the comments by Bialy, Droste, Steel, et al. on Rule 802.5b, 802.5c, and 802.5d by agreeing to add clarifying sketches to Figure D1. Messrs. Steel and McColl were asked to work with CSA to update the figure. It was also suggested that they review the inspectors manual for sketches which could be incorporated into Figure D1.

Discussion:

The Committee will continue their review of the objections/comments on Part VIII, starting with Rule 805.3l, and then review the objections/comments on Part IX.

9 APPROVED TRs

See **Attachment 3** for the Escalator and/or Moving Walk Committee TRs which have been approved by the A17 Committee for A17.1a-1997 and for A17.1b-1998.

10 HANDRAIL HEIGHT AND GUARDRAILS (TR 94-28)

10.1 Stationary Guardrail

Background:

{See also Attachment 8 of the April 1996 minutes}

At the March 1995 meeting, the Committee voted to forward the following proposal to the A17 Code Coordination Committee for consideration {Approved - 7, Opposed - 3 (Schaeffer, White, Hayes)}:

Proposed Rule:

1. Every escalator or bank of escalators adjacent to an open wellway shall have a guardrail. The guardrail shall be a minimum of four (4) inches horizontally away from the moving handrail. This shall be measured from the vertical plane described by the outer surface of the moving handrail and the vertical plane described by the inner surface of the guardrail.

2. The height of the top surface of the guardrail shall not be less than 42 inches measured vertically above the step noseline on the incline and shall not be less than 42 inches measured vertically above the 2 to 4 flat steps at the landings. A transition at the top and bottom curve shall be based on the geometry of a particular manufacturers design.

3. The guardrail shall be designed in such a manner as to prevent objects from being caught between the escalator handrail and the guardrail.

Placement of Rule:

1. BOCA National Building Code
   Section 3011.0, Escalators and Moving Walks - New rule 3011.3

2. UBC Uniform Building Code
   Chapter 30, add new Section 3008

3. SBCCI Standard Building Code
   Chapter 30, add new Section 3005

4. National Building Code of Canada - Add to 3.7.1.4 and 3.3.1.17

Reason: There has been an unexpected history of falls over the sides of escalators. While in general it seems most of this is due to "horseplay" or inebriated people not fully aware of where they were or what they are doing. Dr. John Fruin, a highly regarded expert, has pointed out that a 42 inch (1067 mm) minimum guardrail is needed. To protect against potential abuse or reasonable use, depending on ones viewpoint, guard rails should be mandatory where there are open atriums or other spaces.

At the June meeting, Mr. Kappenhagen reported that the A17 Code Coordination Committee briefly reviewed the above proposal at their June 5 meeting. Representatives from the three model building codes were present at the meeting; however, since the Building Code groups had previously agreed to develop one single building code to replace the three model codes, and the Code Coordination Committee has volunteered to draft the elevator requirements for the combined building code, the representatives suggested that the proposed rule for the stationary guardrail be included in the draft and considered further by the A17 Code Coordination Committee at their next meeting.

At the October 1995, January 1996, April 1996, July 1996, and October 1996 meetings, this item was not discussed as the Committee was awaiting input from the Code Coordination Committee.

Jan 97: The Committee reviewed a proposal from the B44 Executive Committee to adopt B44 Clause 8.3.3.7 as a proposed new rule 802.3j together with a proposal from the B44 Executive Committee to adopt B44 Clause 8.3.4.5 as proposed new Rule 802.4e. See Item 10.2 of these minutes for additional information.

Regarding the external barricade, it was reported that the item was sent to the Code Coordination Committee for a recommendation; however, the Code Coordination Committee has not met in recent times due to a harmonization effort among the model building codes to create one harmonized building code.

In conclusion, most members were in agreement that the external barricade item is outside the scope of A17, and that 8.3.3.7.1 should not be included in the harmonized code. Messrs. McColl and Fisher were requested to discuss this subject again with the B44 Executive Committee to try to convince them that the subject should be addressed by the building code and not the harmonized elevator code.

May 97: During the discussion, a majority of members again indicated that they believed the external barricade to be outside the scope of the A17.1 Code, and noted that the 915 mm requirement of Clause 8.3.3.7.1 was now included in new Rule 802.4e; others felt that the harmonized code should contain requirements similar to B44 Clause 8.3.3.7. A motion was made and seconded to omit the B44 Clause 8.3.3.7 from the harmonized draft.

VOTED: to omit B44 Clause 8.3.3.7 from the proposed A17.1/B44 Binational Code {Approved-8; Opposed-5 (Burge, Hadaller, Hayes, Vlahovic, Welch)}

Following the vote, the committee agreed to recommend to NEII that the NEII Vertical Transportation Standard be updated to reinforce to architects the need for protection of floor openings, and to include this recommendation as part of the rationale for not accepting Clause 8.3.3.7. See Clause 8.3.3.7 of the June 1997 Part VIII Tabulation for the complete rationale.

The Committee is still awaiting a recommendation from the Code Coordination Committee as to the proposal for the Building Codes to include a requirement for a stationary guardrail.

Aug 97: Mr. Kappenhagen reported that the A17 Code Coordination Committee met on July 1 and voted to submit the proposal shown in **Attachment 4** as part of their comments on the Draft International Building Code. He added that the Committee can now proceed with establishing a height for the moving handrail that will be easy to grasp.

Discussion:

The Secretary may have the response from the International Code Council regarding the proposal shown in **Attachment 4**.

10.2 Height of Moving Escalator Handrail

Background:

{See also Attachment 8 of the April 1996 minutes}

At the March 1995 meeting, the Committee discussed the proposal shown in Attachment 8 (page 2/25) of the April 1996 minutes, which Mr. Kappenhagen developed based on his research. Several members opposed the proposal as they felt there was not enough information to support a change to the height. They stated that every criticism regarding escalator handrails has always been that they are too low, not too high.

The consensus of the Committee was that there may be a safer height for the handrail or one that could improve graspability for children and the elderly but there is no substantial data at this time to support such a change. Therefore, the Committee agreed that this topic should be reviewed further and that the Committee may not have the expertise for such a study. Each member was requested to discuss this issue will their co-workers for more in-depth information and the Committee voted to table discussion on the moving handrail height until the next meeting

At the June 1995 meeting, Mr. Kappenhagen recommended that the Committee ask the A17 International Standards Committee to request the TC 178 WG 5 to discuss the height of the moving escalator handrail in order to achieve a consensus height or provide data for use by the Committee. He noted that he and Mr. Steel are members of the A17 International Standards Committee and will be appointed as delegates to the WG 5.

During the discussion, members questioned why the data provided at the last meeting was not enough to support a change to require the moving handrail to be set at 37 - 42 inches. Mr. Kappenhagen responded that the majority of members at the last Escalator Committee meeting had felt there was not enough information to support a requirement for a specific height. The Committee then voted to send to the International Standards Committee a recommendation to request ISO TC 178 WG 5 to discuss the height of the moving escalator handrail in order to achieve a consensus height or provide data for use by the Committee. {Not Approved - 2 (White, Hayes)}

At the October 1995 meeting, the Chair explained that he and George Kappenhagen will be attending the first meeting of the ISO TC 178 WG 5 later in the month and plan to discuss this issue. It was also noted that B44 contains requirements for handrail heights so the issue will most likely come up during harmonization. Therefore, no action is required by the Escalator and Moving Walk Committee at this time.

At the January 1996 meeting, it was reported that B44 has an item concerning handrail heights which will be discussed as part of harmonization. Additionally, the Committee is awaiting input from the ISO TC 178 WG 5 on this item.

Apr 96: Mr. Steel stated that the Committee may be able to complete this item during harmonization depending on when the information from ISO/TC 178 WG 5 is received. This item, together with Item 10.1, was then tabled to allow for review by the Canadian Representatives.

July 96: This item was not discussed.

Oct 96: The Committee agreed to defer discussion on this item until Mr. Kappenhagen could be present.

Jan 97: The B44 Executive Committee proposal to adopt the wording from B44 Clause 8.3.4.5 as new Rule 802.4e was tabled at the April 1996 meeting.

At the January 1997 meeting, after the item was "untabled", the Committee discussed the proposal from the B44 Executive Committee to adopt B44 Clause 8.3.3.7 as a proposed new rule 802.3j together with a proposal from the B44 Executive Committee to adopt B44 Clause 8.3.4.5 as proposed new Rule 802.4e. See Item 10.1 of these minutes for additional information.

During the discussions, Messrs. Steel and Kappenhagen reported that the ISO TC 178 WG 5 was discussing the subject of handrail heights, and recommended the Committee await the outcome of the WG 5 discussions before proposing a rule for inclusion in the harmonization tabulation. It was noted that the issue of height of the moving handrail is separate but somewhat related to the issue of the external barricade; however, the external barricade is outside the scope of A17.1 while the handrail height can be covered in A17.1.

After further discussions, a motion was made and seconded to adopt 8.3.4.5 as new Rule 802.4e. During the ensuing discussion, it was noted that all manufacturers are producing handrails in the 920 mm to 980 mm range, so the B44 range of 810 mm to 1070 mm is too broad. It was also noted that CEN currently requires 1100 mm but is considering dropping to 1000 mm. The motion to adopt Clause 8.3.4.5 as new Rule 802.4e was then amended by raising the lower range from 810 mm to 900 mm. The members agreed that the minimum should not be raised any higher than 900 mm at this time so as not to arbitrarily exclude other manufacturers. Once input is received from WG 5, the Committee can review the subject further, and perhaps decrease the range. It was then VOTED to adopt 8.3.4.5 as Rule 802.4e, replacing the lower range of 810 mm with 900 mm (35 in.) {Abstained - 1 (S Fisher)}.

May 97: The Committee is awaiting the results of the ISO TC 178 WG5 discussions.

Aug 97: Messrs. Steel and Kappenhagen reported that the WG 5 study is not yet complete.

Discussion:

Messrs. Steel and/or Kappenhagen are asked to report.

11 SEISMIC REQUIREMENTS FOR ESCALATORS AND MOVING WALKS

Background:

Jun 95: Mr. Kappenhagen reported that he had prepared a draft for new requirements in Part XXIV for escalators and moving walks which he submitted to the A17 Earthquake Committee. He stated that there is a concern for bolt snapping whenever both ends of the escalator or the moving walk truss are secured to the building structure. The trusses cannot withstand the forces subjected to the building structure and the bolts snap.

The Earthquake Committee reviewed the draft and recommended that it be forwarded to the Escalator and Moving Walk Committee for comment and with the advise that they look only at the content, not the calculations, as the Earthquake Committee must resolve the seismic zone classifications issue before reviewing the calculations. They also asked Mr. Kappenhagen to be the liaison between the two committees and he agreed.

Mr. Kappenhagen then requested that the draft be included in the minutes of this meeting and the agenda of the next meeting so that members could review it for a discussion at the next meeting. See Attachment 11 of the January 1997 minutes for the draft.

Oct 95: Mr. Kappenhagen referred the Committee to the draft (Attachment 11 of the January 1997 minutes) and explained that the Earthquake Committee has asked the Escalator and Moving Walk Committee to review the draft and submit to the Earthquake Committee any comments or suggestions they may have. The Escalator Committee should only review the contents of the draft, not the calculations, since the Earthquake Committee must resolve the seismic zone classifications issue before reviewing the calculations.

Mr. Steel then asked the members to review the draft and submit any comments they may have for discussion at the next full Escalator Committee meeting. George Kappenhagen, who will serve as liaison between the two Committees, will then reiterate our concerns to the Earthquake Committees.

Jan 96: George Kappenhagen reported that he will discuss at the Earthquake Committee meeting the Escalator Committee concerns raised at the October 11 meeting.

The Committee then discussed the draft and voted to send the following comments/questions to the Earthquake Safety Committee:

(1) The Escalator and Moving Walk Committee requests data for the extent of restraints in escalator support that the escalator should be designed to protect against; i.e. what do the escalators have to tolerate?

(2) In the recent earthquakes, many of the escalators lost their glass either from the motion or from debris. The Escalator Committee is concerned about glass balustrades in high seismic areas and thinks the Earthquake Safety Committee may want to consider prohibiting glass balustrades in certain seismic zones.

The Committee then voted to send the above comments/questions to the Earthquake Safety Committee.

Apr 96: Mr. Steel reported that the Earthquake Safety Committee reviewed this item at their February 1996 meeting. Unfortunately, Mr. Kappenhagen, the liaison between this Committee and the Earthquake Committee, was unable to attend due to an illness; however, Mr. Steel did attend.

The Chair explained that the Earthquake Safety Committee does not have any significant documentation on what has happened to escalators in earthquakes and will try to obtain reports on damage to escalators in recent earthquakes.

The Earthquake Committee concluded that it is more important to protect against immediate injury to passengers than to damage to equipment which may happen some time after the earthquake due to wear. They will concentrate on developing requirements to retain the escalator supports so they do not fall off the building supports and for the reinforcement of the handrail system.

Mr. Kappenhagen then reported that he had obtained a free document from the NEHRP Hazard Reduction Program which provides non-technical information about what the rules require. Members found the document interesting and Mr. Kappenhagen volunteered to obtain more copies and forward them to the Earthquake Safety Committee.

July 96: This item was not discussed.

Oct 96: The Committee agreed to defer discussion on this item until Mr. Kappenhagen could be present.

May 97: See **Attachment 5** for the discussions that took place at the Earthquake Safety Committee meeting of February 1997

Mr. Steel explained that he attended the last meeting of the Earthquake Safety Committee, where he was given the assignment to prepare a draft for review by the Earthquake Safety Committee. Mr. Kappenhagen also attended the Earthquake Safety Committee meeting.

Aug 97: This item was not discussed due to time constraints.

Discussion:

12 COMB-STEP IMPACT DEVICES FOR MOVING WALKS, Rule 905.1r (TR 95-70)

Background:

The proposal was submitted to the Main Committee for letter ballot consideration at their January 1996 meeting. Several objections and comments were received. See **Attachment 6**. The Committee subsequently tabled this item to await the outcome of Mr. Verschell's appeals on TR 95-14.

Aug 97: This item was not discussed due to time constraints.

Discussion:

13 LOW FRICTION, RULE 802.3f (TR 96-64)

Background:

TR 96-64 was opened to address the issue raised in Question 3 of Inquiry 96-42:

Inquiry 96-42

Committee: Escalator and Moving Walk

Subject: Rule 802.3f
Skirt Panels

Edition: A17.1-1993 including A17.1b-1995

Question(s):

Skirt panels must be made of low friction materials or be treated with friction reducing materials. No definition or objective criteria is given for low friction. The only interpretations given so far is that certain materials, such as stainless steel, are not low friction.

In an article published in Elevator World in April 1982 (Volume 4 of the Educational Package and Reference Library) the Liberty Mutual Research Center determined that Teflon, whether factory applied or sprayed on, is not an appropriate material for reducing skirt panel friction. These results were presented to the A17 Escalator Committee.

(1) Is a lubricant, either factory applied or sprayed on, a "low friction" or "friction reducing" material?
(2) If so, what is the criteria being used to determine this?
(3) For factory applied materials in general, how do you determine if wear or damage has caused a skirt panel to no longer be low friction?
(4) How often must friction reducing materials be applied?

Answer(s):
(1) Yes
(2) To apply a lubricant to reduce the friction below that of the base material that was currently used in skirt panels
(3) The Code does not address this issue.
(4) The Code does not address this issue. See also Inquiry 87-2, Question 2

Oct 96: It was noted that this item should be reviewed at the next meeting when the committee performs a review of the open items regarding the Part VIII harmonization.

Jan 97: Mr. Steel explained that the CPSC has requested that the manufacturers perform a study to prevent entrapments. As a result, NEII, with cooperation from the major manufacturers, is preparing a study to develop an index to take into account (1) the coefficient of friction; (2) the skirt/step clearance; and (3) the stiffness of the skirts, all of the items which add to something getting caught between the skirt and step under reasonable use. It is hoped that the study will find some way of measuring and quantifying the escalator to determine if it will prevent entrapment, taking into account the three above items. If the study works, there will be no need to define friction.

Mr. Steel suggested the Committee await the results of the study rather than trying to draft a proposal immediately for inclusion in the harmonization package. Once the results of the NEII study are available, the Committee should be able to develop performance oriented rules to prevent entrapments. It is anticipated that the results of the study will be available by the end of the year. It was further reported that NEII is attempting to find an outside group to perform the actual study.

A motion was made, seconded, and VOTED to table this item to await the results of the NEII study {Opposed - 1 (Hayes), Abstained - 1 (Welch)}.

May 97: This item was tabled at the previous meeting to await the results of the NEII study.

Mr. Steel reported that NEII has selected a contractor for the project and provided the contractor with detailed instructions. It is anticipated that a contract will be signed. Once that is all settled, the contractor will be given 120 days to complete the study.

Aug 97: The Committee is still awaiting the results of the NEII study.

Discussion:

Mr. Steel will report.

14 INSTRUCTIONS FOR HAND-WIRING DEVICES (TR 96-53)

Background:

See **Attachment 9** for a proposed new Rule from Hubert H. Hayes concerning instructions for hand wiring.

Oct 96: The Committee agreed to include this item in harmonization but to defer discussion on the item until the next meeting to allow for review of Mr. Hayes' proposal.

Jan 97: Mr. Hayes explained the intent of the proposal shown in **Attachment 9**, for hand wiring devices.

After hearing the discussion, Mr. Steel indicated that the proposed wording was similar to that of EN 115 for hand winding devices.

Mr. Hayes agreed to review his proposal and report back at the next meeting.

May 97: Mr. Hayes stated that he will report at the next meeting.

Aug 97: This item was not discussed due to time constraints.

Discussion:

Mr. Hayes is asked to report.

15 NEW BUSINESS

15.1 Handrail Clearance, Rule 802.4f

Background:

During the harmonization discussions regarding Rule 802.4f, Mr. Rehman explained that B44 Clause 8.3.4.6 was added to the Code in 1994 and is the basis for the harmonized Rule 804.4f shown in the tabulation. He indicated that recently, he and others have encountered problems with the enforcement of B44 Clause 8.3.4.6.

It was then suggested that perhaps a revision could be added to Figure D1 showing a 10 mm maximum on either side; however, others did not agree with this suggestion as the rule permits a maximum total of 10 mm, not 10 mm on each side.

802.4F

Because no definitive proposal was developed, it was agreed to leave the proposed rule 804.4f as shown in the tabulation and to open this TR to review the rule at a later date.

Aug 97: This item was not discussed due to time constraints.

Discussion:

15.2 Entrapment of Fingers Under the Handrail - Between Handrail and Handrail Stand

Background:

The Inspectors' Manual Committee reviewed the NEII letter shown in **Attachment 10**, dated May 27, 1997 and is seeking input from the Escalator and Moving Walk Committee.

Aug 97: This item was not discussed due to time constraints.

Discussion:

15.3 Escalator Brake Testing at Acceptance Inspection

Background:

At their May 7-9, 1997 meeting, the Inspectors' Manual Committee reviewed proposed harmonization Rule 1003.2b(4)(c)(1) shown below.

Rule 1003.2b

(4) ~~1008.2d~~ Drive Machine and Brake. The drive machine and brakes shall be inspected and tested including test of the brake torque (~~Rules 804.3 and 906.3; and~~ Items 2.4 and 4.4).

(a) Connection of machine and drive shaft (Rule 804.1 or 904.1);

(b) Drive motor (Rule 804.2);

(c) Brake type (Rule 804.3 or 904.3):

(1) Brake test: brakes shall be tested to determine conformance with the requirements of Rule 804.3a; or

(2) If the type test certificate exists (see Rule 1105.1), it shall only be necessary to verify the setting on the data plate or in the special instructions (see Rule 804.3a(4) for escalators and 904.3a(4) for moving walks).

(d) Brake data plate (Rule 804.3a(4)); and

(e) Main drive-shaft brake (Rule 804.3b).

This proposed rule is part of the Acceptance Inspection for Escalators and is based on current B44 wording.

The Inspectors' Manual Committee questioned why Rule 1003.2b(4)(c)(1) is necessary since all escalator brakes on new equipment will be required to be type tested before they are inspected and is seeking input as to whether the Escalator Committee agrees that the rule is not necessary.

Aug 97: This item was not discussed due to time constraints.

Discussion:

15.4 Escalator Safety

Background:

See **Attachment 11.**

Aug 97: This item was not discussed due to time constraints.

Discussion:

16 FUTURE MEETINGS

The Committee should schedule their next meeting.

For your information, the following A17 Main Committee meetings have been scheduled:

January 12-16, 1998	Palm Beach Gardens, Florida
March 30 - April 3, 1997	Denver, CO
June 22-26, 1997	Charlotte, NC

17 ADJOURNMENT

The meeting is scheduled to adjourn at 5:00 p.m. on Tuesday, October 7, 1997.

Submitted by,

Marcy A. Weinstock
Secretary, A17/B44 Escalator & Moving Walk Committee