LOG OF MEETING

DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Meeting of National Response Team Prevention Committee

DATE: September 15, 1994

PLACE: DOT Headquarters
400 7th St., S.W.
Washington, D.C.

LOG ENTRY SOURCE: John Preston, ESME jp

DATE OF ENTRY: September 22, 1994

COMMISSION ATTENDEES:

John Preston, ESME

NON-COMMISSION ATTENDEES:

James O'Steen, U.S. DOT/RSPA (committee chairman) and other members. Complete list of attendees will be available upon receipt of meeting minutes.

SUMMARY OF MEETING:

Attached is a copy of the agenda of the subject meeting.

John Preston summarized the Commission's activities regarding five-gallon buckets that resulted in the publication of an Advance Notice of Proposed Rulemaking on July 8, 1994.

Mr Preston distributed copies of material that he had used at the time he briefing the Commission on the subject of five-gallon buckets (copy of material attached). He asked members of the National Response Team to call him if they had any suggestions that might minimize the risk of infant drowning in five-gallon buckets.

Attachments

DISTRIBUTION

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NRT PREVENTION COMMITTEE

13th Meeting
Room 3328
1:30 - 3:30

AGENDA
September 15,1994

WELCOME AND REVIEW OF MINUTES	Ed Mazzullo RSPA/DOT
STAFFORD ACT AMENDMENTS	P. Stahlschmidt FEMA
RECENT ANPRM ON 5-GALLON PLASTIC BUCKETS	John Preston CPSC
HOW RQ'S ARE ASSIGNED TO HAZARDOUS SUBSTANCES	Stan Barkin ERD/EPA
OTHER TOPICS OF INTEREST	Group
INTERNATIONAL HARMONIZATION OF PHYSICAL HAZARDS OF CHEMICALS (review of meeting in Canada)	Dr. Charles Ke RSPA/DOT
UPDATE ON HM-206	Helen Engrum RSPA/DOT
ADJOURN	Ed Mazzullo

Consumer Product SAFETY ALERT

FROM THE U.S. CONSUMER PRODUCT SAFETY COMMISSION, WASHINGTON, D.C.

A Hidden Hazard In the Home

Infants and Toddlers Can Drown in 5-Gallon Buckets

Large plastic buckets and young children can be a deadly combination. The U.S. Consumer Product Safety Commission (CPSC) estimates that annually 50 young children drown in buckets containing water or other liquid used for mopping floors and other household chores. Most of the victims have been between 8 and 14 months old.

Between 1984 and 1992, over 200 young children were reported to have drowned in buckets and 21 others were hospitalized. More than 90 percent of the reported incidents where the bucket size was noted involved the 5-gallon size.

Of all buckets, the 5-gallon size presents the greatest hazard to young chidren because of its tall, straight sides and weight, even with just a small amount of liquid. At 14-inches high, a 5-gallon bucket is about half the height of a young child. A child's height combined with the stability of the bucket makes it nearly impossible for top-heavy infants and toddlers to free themselves when they fall head first into the bucket. A child can drown in a small amount of water.

Children are naturally curious and easily attracted to water. At the crawling and pulling up stages, while learning to walk, they can quickly get into trouble. CPSC believes that bucket drownings happen when children are left momentarily unattended, crawl to a bucket, pull themselves up, and lean forward to reach for an object or play in the water.

Parents and caregivers, who are using 5-gallon buckets for household chores, are warned not to leave a bucket containing even a small amount of liquid unattended where a young child may gain access to it. A child can drown in the time it takes to answer a telephone.

Between 1984 and 1992, over 200 young children, who fell into buckets, drowned and 21 others were hospitalized.

(009308)

CPSC ACTIVITIES CONCERNING 5-GALLON BUCKETS

John Preston

THE PROBLEM — Between January 1984 and March 1994 the Commission received 228 reports of drowning incidents in industrial open-head shipping containers with a rated capacity of about 5 gallons - hereinafter referred to as 5-gallon buckets. During this period there were also 30 non-fatal incidents associated with these buckets. Based on incident data for 1990 and 1991, staff estimates that about 40 children drown every year in 5-gallon buckets. This estimate is somewhat lower than a previous estimate of 50 drownings per year and the reduction is the result of better reporting of incidents.

VICTIMS — SEE ATTACHED GRAPHIC - The typical victim is a child who is just beginning to walk. Victims ranged in age from 7 to 24 months - Median age 11 months.

RACE ETHNICITY — SEE ATTACHED GRAPHIC - CPSC investigators generally don't collect socio-economic data regarding victims of accidents. However, from police reports it appears that victims in bucket drowning incidents were generally children in poor families.

RISK — Estimated 8 million children under 24 months of age
Estimated 40 deaths per year
Risk of drowning is 5 per million or **one in 200,000**
Could be as high as One in **50,000**

PRODUCT INFO. — Investigations showed: 127 buckets were plastic
1 bucket was metal
23 buckets unknown

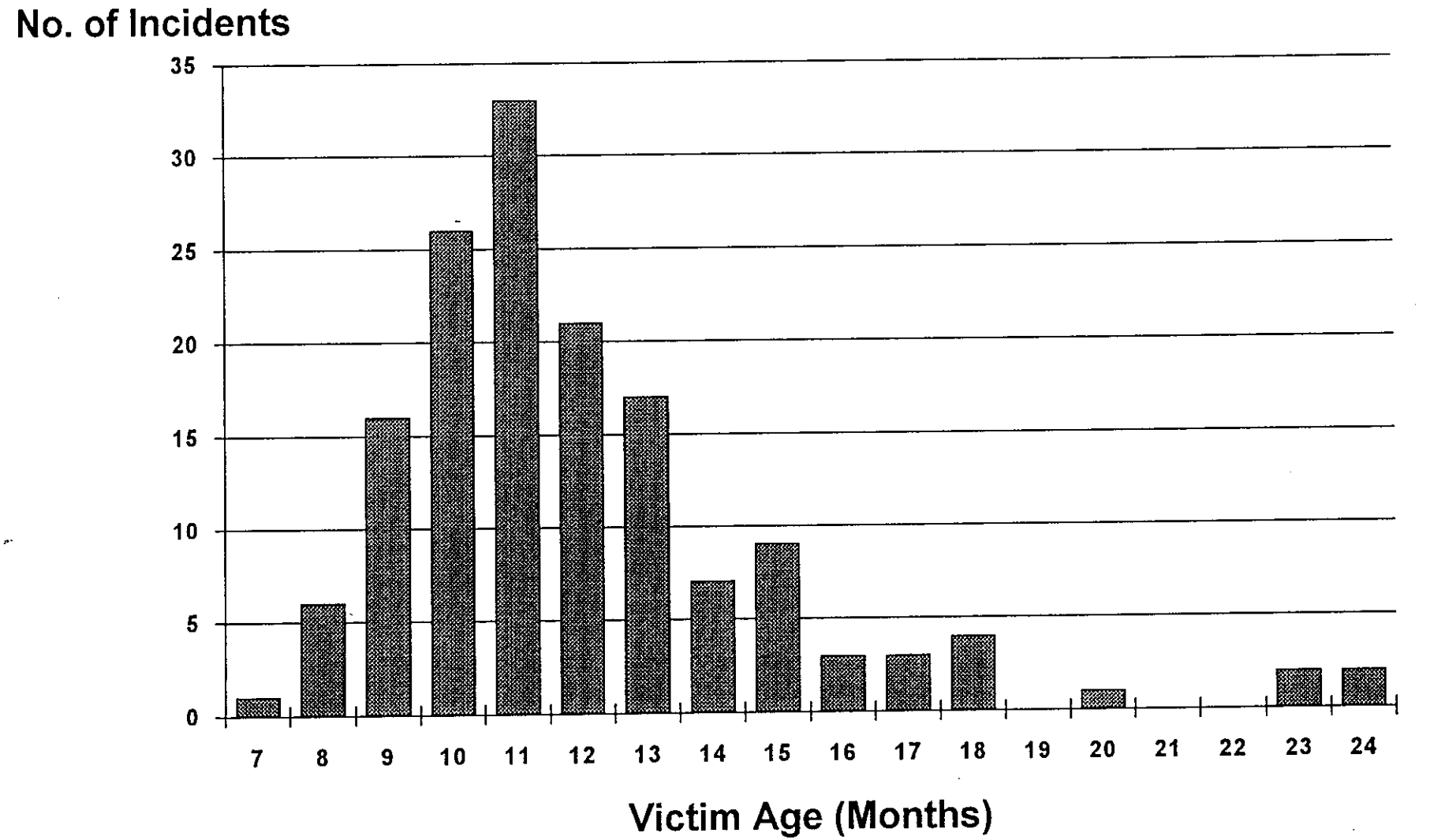
5-gallon capacity - over 90%
2-gallon capacity - 1
3-gallon capacity - 1
3½-gallon capacity - 1
4-gallon capacity - 2
6-gallon capacity - 3

By far the majority of buckets involved in drownings were being used for household cleaning purposes. Of these buckets, 63% had been left inside the home and 10% outside the home.

BUCKET DIMENSIONS	SEE GRAPHIC ON BUCKET HEIGHT AND TOP DIAMETER - CPSC staff believes that bucket dimensions are more critical in determining the drowning hazard presented by a bucket rather than the volumetric capacity. Bucket height: Most often 14" - 15" (min. 10" - max. 24"): Top diameter: Most often 11 - 12" (min. 10.5" - max. 13.5") Fluid height ranged from 3 - 12" (median height 6")
HAZARDOUS BUCKETS	Based on the anthropometry of the typical victim, buckets having a top opening diameter greater than **7 inches** and a height ranging from a minimum of **12 in.** to a maximum of **21 in.** Information on bucket sizes obtained from a plastic bucket manufacturer (SEE TABLE) shows that buckets in the above size range would have capacities ranging from <4 gallons to over 7.9 gallons

Bucket Incidents

by Age of Victim[1]
(n=151)



[1]Sept.1986-Mar.1994

Source: C.P.S.C./EPHA

Relative Risk of Bucket Incidents

by Race/Ethnicity[1]
(n=136)

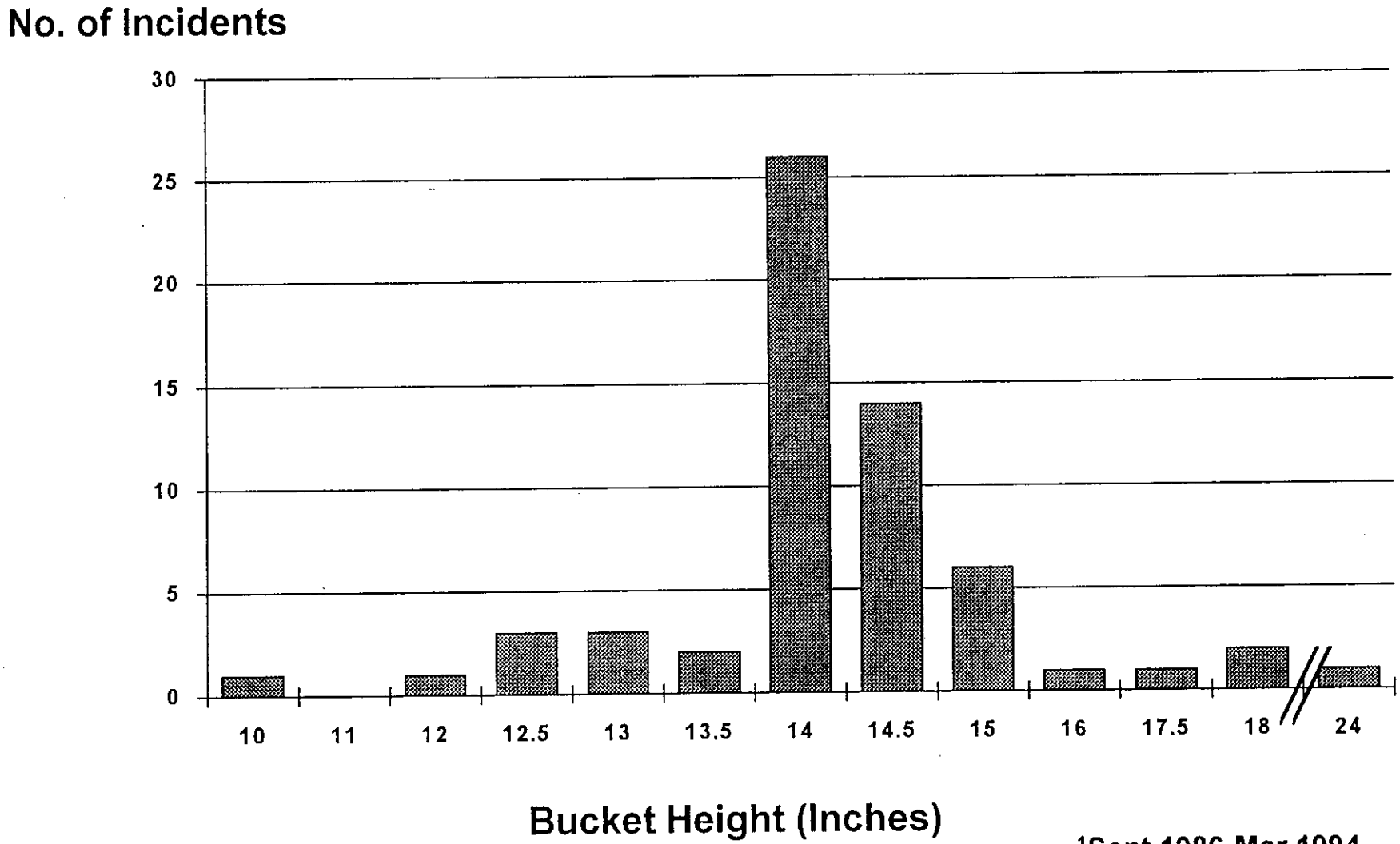
Race/Ethnicity	Incidents	U.S. Live Births	Relative Risk
Asian	< 1 %	3.3 %	.3
Black	39 %	16.8 %	2.3
Caucasian	30 %	65.8 %	.4
Hispanic	27 %	13.3 %	2.0
Native American	3 %	1.0 %	3.0

[1]Sept.1986-Mar.1994

Source: C.P.S.C./EPHA

Bucket Incidents

by Bucket Height[1]
(n=131)



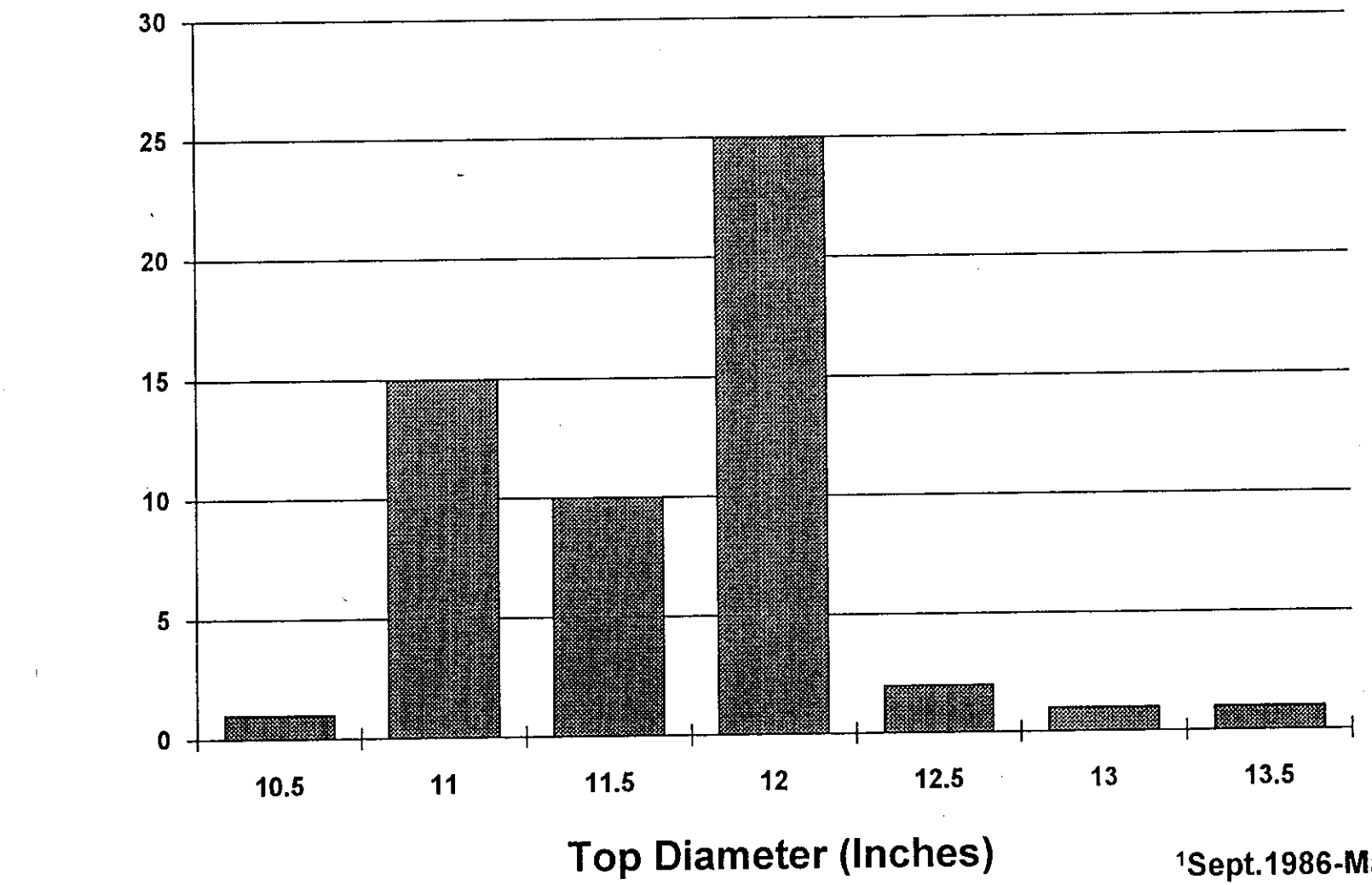
[1]Sept.1986-Mar.1994

Source: C.P.S.C./EPHA

Bucket Incidents

by Top Diameter of Bucket[1]

(n=131)



[1]Sept.1986-Mar.1994

Source: C.P.S.C./EPHA

ONE MANUFACTURER'S PLASTIC BUCKET SIZES

NOMINAL CAPACITY GALLONS	NOMINAL CAPACITY LITERS	HEIGHT Inches	TOP DIAMETER Inches
3.0	11.4	11-5/8	9-3/4
3.5	13.2	10-7/8	12-3/8
4.0	16	12-5/8	11-3/8
4.25	16	11-3/4	12-3/8
4.5	17	14-1/4	11-3/8
5.0	19	14	12-1/8
5.0	19	14-1/4	12-3/8
5.0	19	14-5/8	12-3/8
5.3	20	15-1/4	12-3/8
6.0	23	17-3/4	12-3/8
7.9	30	15-3/4	14-1/4

FIG. 1 Example of Label Type A