

SAFETY BRIEF

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ON THE SAFETY OF CONSUMER DEEP FRYERS

By Dennis B. Brickman*



Figure 1 - Cooker Accident Setup

ABSTRACT

A 27 month old boy sustained burn injuries from a consumer electric cooker which was pulled off a kitchen countertop. Approaches utilized in the safety analysis include accident reconstruction, critical accident statistics analysis, UL 1083 standard research, and an evaluation of design alternatives. This paper investigates the safety implications of the new UL required break-away power cord for electric cookers/deep fryers.

INTRODUCTION

This paper addresses a household accident in which a 27 month old boy sustained burn injuries from a consumer electric cooker/deep fryer which was pulled off a kitchen counter. Shortly before the accident, the injured boy's grandfather placed the pot filled with grease on the kitchen counter and suspended the cord over the edge of the counter to plug the power cord into the electrical outlet on the adjacent wall as depicted in Fig. 1. While the oil in the pot was heating up, the injured boy's grandfather went outside the home to rake leaves, leaving his grandson unattended. Even though the injured boy's grandmother, mother, and aunt were sitting at the kitchen table in the parlor adjacent to the kitchen pantry where the accident occurred, they claim not to have witnessed the accident. After the accident, the pot and grease were found on the kitchen pantry floor and the two year old boy sustained second and third degree burns to his face, scalp, arms, and back. It was hypothesized that the two year old boy pulled the pot off the counter by pulling on the power cord.

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No Charge

WARNINGS AND INSTRUCTIONS

Figure 2 depicts the warning tag that was permanently attached to the originally supplied power cord within 51 mm (2 in.) of the plug in accordance with the requirements contained in UL 1083 (3/1/94) Safety Standard for Household Electric Skillets and Frying-Type Appliances [1]. It should be noted that at the time of the accident, a substitute power cord, obtained from a different electric kitchen appliance, was being utilized because the knob broke off the original temperature control on the cord. In addition to the warning tag attached to the original power supply cord, the manual for the subject cooker contained the following instructions:



Figure 2 - Power Supply Cord Warning Tag

1. Close supervision is necessary when any appliance is used by or near children.
2. Do not let cord hang over edge of table or counter or touch hot surfaces.

Furthermore, the label for the shortening used with the cooker contains the warning: "DO NOT leave unattended while heating."

ACCIDENT RECONSTRUCTION

An accident reconstruction analysis was conducted using an exemplar cooker and a 96.5 cm (38 in.), 15.0 kg (33.1 lb), 28 month old boy who was similar to the injured boy in age, height, and weight. The exemplar cooker was filled with water and placed on a laminate countertop located 90.9 cm (35.8 in.) above the floor in a similar fashion as depicted in Fig. 1. The exemplar cooker power cord was not plugged

into an electrical outlet. The accident reconstruction was photographed and videotaped. Results of the accident reconstruction are as follows:

1. While standing on the floor, the 28 month old boy was able to grab the power cord and pull the pot off the edge of the counter.
2. While standing on the floor, the 28 month old boy was able to grab the foot of the pot as shown in Fig. 3 and pull the pot off the edge of the counter.

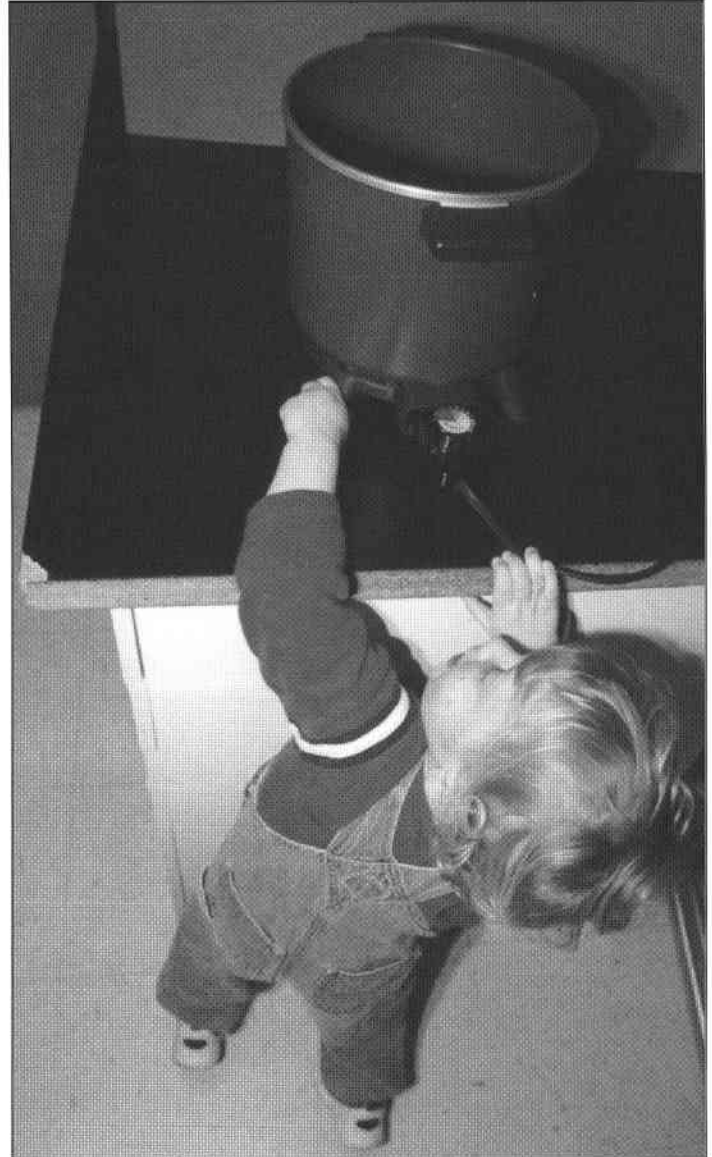


Figure 3 - 2 Year Old Boy Pulling Pot Foot

3. While standing on the floor, the 28 month old boy was able to grab the temperature control as shown in Fig. 4 and pull the pot off the edge of the counter.
4. Based on the above, there are three potential explanations for how the injured boy pulled the cooker off the counter at the time of his accident. It is inconclusive



Figure 4 - 2 Year Old Boy Pulling Temperature Control

that the 102.5 cm (40.4 in.), 15.0 kg (33.1 lb), 27 month old injured boy pulled the cooker off the counter by pulling on the power cord at the time of his accident.

ACCIDENT STATISTICS

On July 4, 2001, a news release from the U.S. Consumer Product Safety Commission (CPSC) was issued indicating that the CPSC has reports of 7 deaths and 64 serious burn injuries to children under 10 from deep fryers since 1980 [2]. According to this CPSC news release, these deaths and injuries resulted from young children pulling on the power cord, tipping over the deep fryer and its hot contents. In order to determine if all the reported deaths and serious burn injuries to children under 10 were associated with children pulling on the power cord, a critical analysis was performed on the CPSC spreadsheets which contain narratives as generated by the National Electronic Injury Surveillance System (NEISS) [3]. All 71 cases from the CPSC spreadsheets are presented in the Appendix breaking the cases out into the three categories utilized by the CPSC as follows:

1. Cases that definitely involved a child pulling on the cord (22 cases).
2. Cases that definitely did not involve a child pulling on the cord (9 cases).
3. Cases which probably/possibly involved a child pulling on the cord (40 cases).

The narratives are quoted as they appear in the CPSC spreadsheets. The date of the accident and the age of the injured child precedes each narrative. The text has not been edited; misspellings and incomplete sentences are unaltered. It should be noted that there were approximately 20 million

deep fryers in U.S. households in 1998 and approximately 2,625,000 new deep fryers sold in 1999 [4].

UNDERWRITERS LABORATORIES UL 1083

According to the July 4, 2001 CPSC news release [2], "The U.S. Consumer Product Safety Commission (CPSC) worked with Underwriters Laboratories (UL) to develop a new safety standard that calls for 'break-away' power cords for electric deep fryers. This new power cord will break away if a child pulls on it, preventing the deep fryer from tipping over and spilling scalding hot cooking oil on the child. The new requirements also apply to electric fondues and electric multi-purpose pots that use cooking oil. The new 'break-away' power cord is held to the deep fryer by a magnet." The revised requirements of the fourth edition of UL 1083 [5] which call for a detachable power supply cord employing a magnetic appliance coupler became effective on May 30, 2001. The fourth edition of UL 1083 [5] revised requirements for the detachable power-supply cord contained in section 36A.4 specify that "the force required to separate the detachable power supply cord from the appliance, as determined in 36A.1, shall be at least 5 percent less than the force required to overcome the static friction of the appliance, as determined in 36A.2." [5].

DETACHABLE POWER SUPPLY CORD

Testing

A new cooker similar in construction to the subject accident cooker equipped with a magnetic detachable power supply cord and rubber foot pads was obtained for the test program. The magnetic detachable power cord on the new test cooker meets the revised UL 1083 requirements effective on May 30, 2001 and is covered by United States Patent No. US 6,250,931 B1 issued on June 26, 2001 [6]. The test cooker was placed on a laminate counter and the magnetic detachable power cord was pulled by a force gauge and by the same 28 month old boy who participated in the accident reconstruction program. Figure 5 depicts 3 frames from a video sequence where a straight 10.2 N (2.3 lb) force is horizontally applied to the end of the magnetic detachable power cord to pull the test cooker filled with water off the counter. It should be noted that the magnetic power cord detached from the pot after it fell off the edge of the counter as shown in Fig. 5C. Figure 6 depicts 3 frames from a video sequence where the 28 month old boy pulled on the magnetic power cord while standing on the floor, causing the test cooker filled with water to fall off the counter. It should be noted that the power cord did not detach from the pot even after the pot fell off the edge of the counter as shown in Fig. 6B. These test results indicate that the presence of the magnetic detachable power cord as required by the fourth edition of UL 1083 effective on May 30, 2001 does not absolutely prevent a child from sustaining a burn injury by pulling a cooker filled with hot oil off the counter. This conclusion is agreed with in both comments from the CPSC and responses to these comments by UL [7].

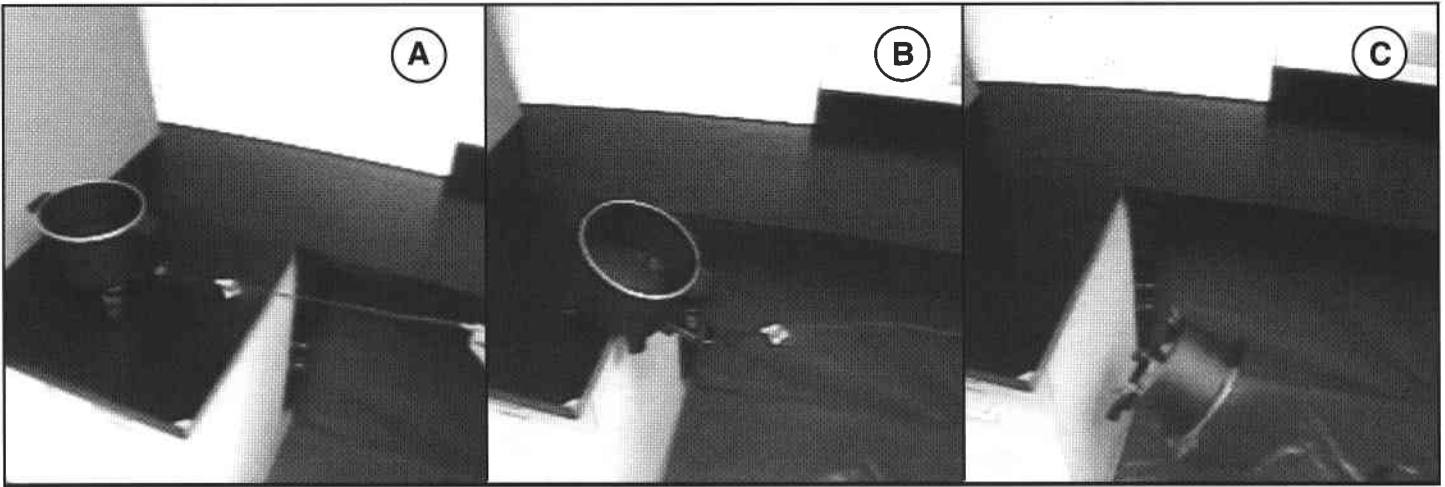


Figure 5 - Test Sequence - Cooker with Detachable Cord Pulled Off Counter with 10.2 N (2.3 lb)

Safety Analysis

In addition to not absolutely preventing a child from pulling a cooker off the counter, the presence of the magnetic detachable power cord creates new dangers as described in the instruction manual for the new test cooker. Some of the potential safety downsides associated with the magnetic detachable power cord on an electric cooker/deep fryer are as follows:

1. Presents an electric shock hazard as a child places the detached power cord into his mouth while the cord is plugged into an electrical outlet.
2. Presents a burn hazard as the magnetic power cord is attached to a hot pot while the cord is plugged into an electrical outlet.
3. Presents an explosion hazard as a spark creates an ignition source for combustible gases.
4. Presents a fire hazard.
5. Presents a trip and fall hazard on the detached power cord.
6. Produces a false sense of security leading to decreased supervision of children around cookers.
7. Leads to misuse as "Off" control by detaching magnetic power cord from pot instead of disconnecting power cord plug from electrical outlet or turning temperature control to the off position.

In addition to the potential safety downsides listed above, some potential functional downsides associated with the magnetic detachable power cord on an electric cooker/deep fryer are as follows:

1. Nuisance detachments of the magnetic power cord from the pot.
2. Temperature control fractures due to impact after detachment of the magnetic power cord from the pot.

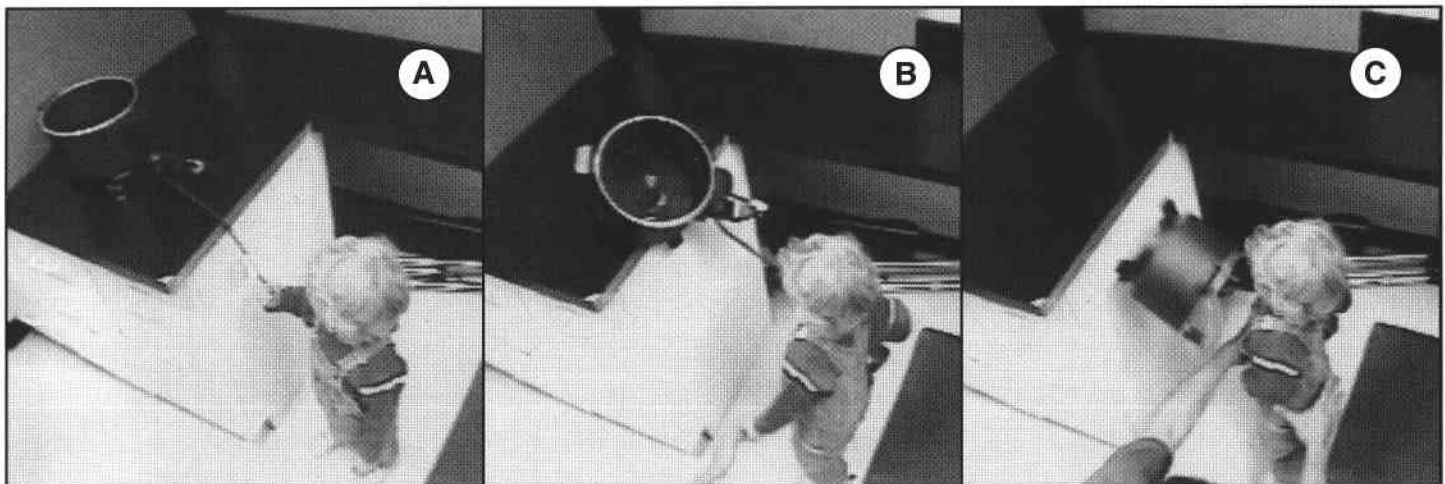


Figure 6 - Test Sequence - Cooker with Detachable Cord Pulled Off Counter by 2 Year Old Boy

3. Lack of interchangeability with other electric kitchen appliance power cords. It should be noted that a substitute power cord was being utilized at the time of the subject accident.
4. Loss of attachment capability between magnetic power cord and pot due to food residue or cleaning agents.

DESIGN ALTERNATIVES

Latching/Locking Lid

One of the design alternatives that was considered, but rejected, for inclusion in the revised UL 1083 standard effective on May 30, 2001 was a latching/locking lid for a consumer electric cooker/deep fryer for minimizing the release of or retaining the hot oil in the vessel if it is pulled off the counter. In considering the efficacy of the locking lid proposal, the CPSC conducted some testing of deep fryers equipped with latching lids to see what would happen when the units were tipped over a counter onto the floor [8]. Preliminary testing revealed that the latching lid opened in some tests and allowed the escape of oil during the descent [8]. Furthermore, the CPSC accident data on deep fryers did not support the call for latching because having a latching lid might not have changed the situation in 5 of the 9 incidents the CPSC summarized [8]. In addition, the manufacturers mentioned several reasons why requiring a latching lid may not be effective such as [8]:

1. Many of the units in the incident reports were being emptied or were in cool-down, when consumers do not close the lid.
2. A large open latching lid could make the unit more able to be knocked about.
3. The unit would have to grow in size to comply with stability tests.
4. Making the units more expensive by adding the new lids may force some consumers to fry more foods on the range top and could increase grease fires.
5. With added lids, consumers would have more interaction with the appliance, thereby increasing the possibility of tip-over or spillage.

Rubber Feet

Another design alternative that was considered, but rejected, for inclusion in the UL 1083 standard was rubber feet to increase the pot's resistance to sliding on a counter. Underwriters Laboratories provided some reasons why they do not believe the ability of a deep fryer to slide across a countertop should be criticized as follows [9]:

1. The ability of a deep fryer to slide on a countertop allows the deep fryer to be easily repositioned on the countertop

without the need for lifting the appliance. If the coefficient of friction between the countertop and the deep fryer is increased it will be necessary to lift the deep fryer to reposition it out of the way when use is completed. The probability of spilling hot oil is greater if it is necessary to lift the deep fryer to reposition it as opposed to being able to slide it across a countertop.

2. If a deep fryer is impacted, it may either be placed into translation or caused to tip over depending on the point of impact with respect to the center of gravity and the coefficient of friction between the legs of the deep fryer and the supporting surface. Increasing the coefficient of friction will increase the likelihood that an impact will cause the deep fryer to tip over and spill hot oil rather than being put into translation.

A new cooker equipped with rubber foot pads is being tipped over in Fig. 7. Here a 28 month old boy is able to tip the cooker over by pulling on the temperature control. This



Figure 7 - Tip Over of Cooker with Rubber Feet

can be compared to Fig. 4 where a similar pot without rubber foot pads was put into translation across the countertop when the same 28 month old boy pulled on the temperature control.

CONCLUSIONS

An accident reconstruction utilizing an exemplar cooker, countertop, and a 28 month old boy indicates that there are multiple potential explanations for how the subject cooker was pulled off the kitchen counter at the time of the subject accident. Since there were no eyewitnesses, it is inconclusive that the injured boy pulled the cooker's power cord to cause his accident. Indeed, the majority of the burn injuries and deaths to children under 10 associated with deep fryers reported by the CPSC fall into the category where it is not definitive that the child pulled on the cord (40 out of 71 cases). Based on these 71 reported cases of burn injuries to children under 10 over approximately a 20 year period, Underwriters Laboratories revised its standard 1083 effective on May 30, 2001 to require a detachable power supply cord. Testing of a new cooker equipped with this new magnetic detachable power cord reveals that a child can still pull the pot off the counter and sustain burn injuries. Because of the small sample size of CPSC reported child burn injuries associated with deep fryers and the novelty of the detachable power cord on cookers/deep fryers, it is far too early to tell whether the revised UL Standard 1083 requirements will have a significant effect on these injuries. On the other hand, the real safety downsides associated with the detachable power cord identified in the new cooker/deep fryer instruction manuals must be monitored. According to the Dependency Hypothesis [10-11], the introduction of the detachable power cord on consumer electric cookers/deep fryers gives rise to a statistically significant pattern of user dependence. In this case that might mean decreased supervision by caregivers of children around the cookers and their hot contents. The question should be asked: Will more caregivers now leave their children unattended with the new style cooker in use as the injured boy's parent and grandparent did at the time of the subject accident?

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APPENDIX

Table 1 – Cases That Definitely Involved Child Pulling On Cord

3/1/81 – 2 years. WHILE WALKING IN THE KITCHEN, THE VICTIM'S FOREHEAD CAME INTO CONTACT WITH THE CORD OF THE ELECTRIC DEEP FRYER WHICH WAS DRAPED OVER THE END OF THE COUNTER. THE VICTIM'S CONTACT AND CONTINUED MOVEMENT CAUSED THE FRYER TO SLIDE ACROSS THE COUNTER. ALTHOUGH THE VICTIM'S FATHER WAS ABLE TO STRIKE AT THE FRYER TO KEEP IT FROM HITTING THE VICTIM, THE HOT OIL IN THE FRYER SPILLED OVER THE VICTIM.

12/11/83 – 16 months. PULLED CORD ,DEEP FRYER FELL OFF TABLE,HIT ARM

9/7/85 – 23 months. 38% TOTAL BODY SURFACE THERMAL INJURY – ALLEGEDLY GRABBEDELECTRIC CORD PULLING DEEP FAT FRYER ON HIMSELF – AUTOPSY YES

4/20/87 – 7 months. A 7-MONTH BOY WAS HOSPITALIZED AFTER HE PULLED ON A CORD ATTACHED TO A DEEP FRYER SPILLING HOT GREASE ON HIM.

7/17/89 – 12 months. A 1-YEAR OLD GIRL WAS HOSPITALIZED AFTER SHE PULLED CORD OF A DEEP FRYER SPILLING HOT GREASE ON HER.

3/28/91 – 7 months. PULLED DEEP FRYER BY THE CORD ONTO HIMSELF SUSTAINING LOWER TRUNK BURNS.

10/15/92 – 13 months. PT GRABBED ELECTRIC CORD FROM DEEP FRYER WITH HOT GREASE PULLED IT ONTOFACE, 1ST DEGREE BURNS.

10/20/92 – 10 months. ONONLY DIAPER BURNS OF ALL EXTREMITIES CHEST ABD FACE. DX. 2 DEGREE BURNS

12/28/92 – 8 months. THE 8 MONTH OLD FEMALE VICTIM DIED FROM 3RD DEGREE BURNS TO 27% OFOF HER BODY SKIN AREA WHEN SHE GRABBED THE CORD OF A FRYER FILLEDWITH HOT GREASE, THAT WAS SITTING ON TOP OF A KITCHEN COUNTER TOPIN HER HOME, AND PULLED FRYER ON TOP OF HER. HOT GREASE SPILLED ONHER HEAD, CHEST, AND ARMS. THE VICTIM WAS TAKEN TO THE EMERGENCYROOM WHERE SHE DIED 3 DAYS LATER.

5/27/94 – 8 months. AN 8 YEAR OLD MALE RECEIVED SEVERE SCALD BURNS FROM HOT OIL IN A DEEPFAT FRYER. THE CHILD WAS IN HIS BABY WALKER WHEN HE GRABBED THEFRYER'S POWER CORD AND PULLED THE FRYER OFF THE COUNTER SPLASHINGHIMSELF WITH THE HOT OIL. SINCE THE INCIDENT THE CHILD HAS UNDERGONE EXTENSIVE MEDICAL TREATMENT FOR HIS BURNS.

11/21/94 - 9 months. A 9 MONTH OLD MALE WAS IN A WALKER AND SOMEHOW TRAVELED TO AREA NEARKITCHEN COUNTER. HE WAS ABLE TO GRAB THE POWER CORD OF AN ELECTRICDEEP FRYER AND PULL THE DEEP FRYER OFF OF THE COUNTER. THE HOT OILINSIDE POURED ONTOHE VICTIM. HE WAS TAKEN TO BURN UNIT OF A LOCALHOSPITAL, WHERE HE DIED 3 WEEKS LATER OF HIS INJURIES.

2/3/95 - 6 months. A 6 MOM SUFFERED A SERIOUS UPPER BODY BURNS FROM HOT OIL IN A DEEP FRYER THAT SPILLED ON HIM AFTER HE PULLED ON THE CORD OF THE FRYER.

9/30/95 - 12 months. A 12 MOM WAS PAINFULLY BURNED WHEN HE TUGGED ON THE CORD OF A DEEPFRYER SPILLING THE CONTENTS ON HIMSELF. HIS MOTHER WAS ALSO BURNEDLESS SERIOUSLY.

3/11/96 - 6 months. 6 MTH OLD MALE SITTING IN A HIGHCHAIR, PULLED ON CORD OF A Deep fryerAND SUSTAINED A LEFT UPPER LEG BURN WHEN HOT GREASE SPLASHED.

5/27/96 - 3 years. 5% BSA 1ST DEGREE BURNS RT NECK/ SHOULDER-PULLED FRY DADDY FULL OFHOT GREASE ON HIMSELF AND BROTHER.

3/29/97 - 7 months. A 7 MONTH OLD MALE SUFFERED 2ND AND 3RD DEGREE BURNS TO OVER 45% OF HIS BODY WHEN HOT OIL FROM A DEEP FAT FRYER SPILLED ON HIM. THECHILD WAS REPORTED TO HAVE PULLED ON THE FRYER'S POWER CORD, WHICH PULLED THE FRYER OFF A COUNTER, SPILLING ITS CONTENTS ONTO THECHILD. THE INCIDENT OCCURRED IN THE KITCHEN OF THE CHILD'S HOME.

5/2/97 - 2 years. SECOND DEGREE BURNS TO BACK – PLAYING WITH ANOTHER CHILD, CAUGHTCORD OF FRYER WITH HOT GREASE, SPILLED ON BACK

5/2/97 - 2 years. SMALL 1ST DEGREE BURN LOW BACK – PLAYING WITH ANOTHER CHILD, CAUGHT CORD OF FRYER, HOT GREASE SPILLED ON BACK

7/26/97 - 11 months. A DEEP FRYER WAS KNOCKED OFF & FELL ON PT DX-BURN TO UPPER EXTREMITIES (Investigation indicated that the child pulled the cord).

1/17/99 - 12 months. 15% TBSA 2ND DEGREE BURNS TO FACE AND TRUNK-TRIPPED ON CHAIR & PULLED CORD OF Deep Fryer HOT GREASE SPLASHED CHILD-AT HOME

10/18/00 - 2 years. AS A 2-YEAR-OLD FEMALE WALKED INTO THE KITCHEN, HER ARM CAUGHT THEHANGING CORD OF A DEEP FRYER. THE FRYER TIPPED OVER ON TOP OF HER.SHE SUFFERED 3RD DEGREE BURNS OVER 60% OF HER BODY. SHE ISRECOVERING IN A BURN CENTER HOSPITAL.

Unknown - 0 years. DEEP FAT FRYER DOESN'T HAVE A TOP FOR USE DURING OPERATION AND CORD WAS LONG ENOUGH TO ALLOW CHILD TO PULL APPLIANCE OVER ON HERSELF.

Table 2 - Cases That Definitely Did Not Involve Child Pulling On Cord

3/17/81 - 6 years. Deep fryer SITTING ON FLOOR-PT WALKED INTO IN, SPILL GREASE

9/22/82 - 12 months. ASPIRATION AND CARDIOPULMONARY ARREST; 2ND AND 3RD DEGREEBURNS OVER 30% BODY SURFACE AREA – FELL INTO DEEP FAT FRYER WITH WATER— AUTOPSY YES.

4/20/84 - 3 years. A THREE YEAR OLD MALE SUFFERED 2ND DEGREE BURNS ON HIS CHEST AND BACKWHEN A DEEP FAT FRYER TIPPED OVER ON HIM IN THE KITCHEN OF HISPARENT'S HOME. THE FRYER WAS UNPLUGGED AND CORD HAD BEEN REMOVED.THE FRYER WAS RESTING ON A WOODEN PULL-OUT BREAD BOARD ABOUT 34" ABOUT 34" ABOVE THE FLOOR. THERE WAS NO EYE WITNESS AND IT ISUNCERTAIN WHAT THE VICTIM WAS DOING WHEN THE ACCIDENT OCCURRED. THEVICTIM WAS HOSPITALIZED FOR MORE THAN 60 DAYS, AND HAS HAD SEVERALSKIN GRAFT OPERATIONS.

4/18/87 - 6 years. SPILLED A DEEP FAT FRYER WHTEN OPENING ANTOHER

1/1/88 - 4 years. A 4-YEAR OLD BOY AND HIS MOTHER WERE HOSPITALIZED AFTER THE BOY BUMPED A DEEP FAT FRYER DUMPING HOT GREASE.

10/17/92 - 3 years. PT CLIMBED UP ON KITCHEN COUNTER AND ACCD. KNOCKED OVER FRYER WITH HOTGREASE ONTO HAND/ FOREARM/ FACE, 2 DEGREE BURNS

1/7/96 - 12 months. PT. PULLED THE CORD OF A PORTABLE FRYER UNIT AND IT SPILLED CONTENTS SUSTAINED GREASE BURNS TO UPPER TRUNK, FACE AND NECK. E924.0 (Investigation indicated that this was not a cord case).

4/20/97 - 3 years. BURNS OVER BODY – KNOCKED GREASE FRYER OVER AND HOT GREASE SPILLED

Unknown - 5 years. AFTER COOKING IN DEEP FAT FRYER CHILD REACHED UP TO COUNTER – TIPPEDIT OVER – BURNED BY HOT GREASE - LAWSUIT

Table 3 - Cases That Which Probably/Possibly Involved Child Pulling On Cord

7/4/80 - 6 years. CHILD BURNED – GREASE FROM DEEP FRYER SPILLED ON HER

3/1/81 - 2 years. APPLIANCE FELL OFF COUNTER AND HOT GREASE BURNED VICTIM.

9/4/81 - 2 years. PULLED COOKER OFF TABLE FIRST AND SC DEGREE BURNS 15 PERCENT TBSA

4/29/82 - 16 months. PULLED DEEP FAT FRYER OFF COUNTER ONTO SELF

12/15/82 - 12 years. BURNED WITH HOT GREASE FROM FYER AT HOME

1/11/83 - 12 years. TIPPED OVER deep fryer DEEP FRYER, GREASE SPILLED

1/18/83 - 0 years. INDIVIDUAL WAS BURNED FROM HOT COOKING OIL WHEN CHILD PULLED FRYER OFF COUNTER.

4/4/83 - 15 months. BOY INJURED BY ACCIDENT INVOLVING HOT GREASE & DEEP FAT FRYER.

8/9/83 - 11 months. THE CHILD PULLED A PAN OF HOT GREASE ALL OVER HIM.

1/26/84 - 8 months. BOY UPSET DEEP FRYER FILLED WITH HOT OIL. HE WAS HOSPITALIZED FOR BURNS.

3/17/85 - 3 years. GIRL WAS BURNED WHEN SHE PULLED A DEEP FRYER OVER SPILLING THE HOT OIL ON HER.

4/10/85 - 7 years. BOY PULLED DEEP FRYER FILLED WITH HOT GREASE OVER ON HIMSELF.

7/1/85 - 13 months. BOY, 13 MONTHS, WAS BURNED WHEN DEEP FAT FRYER SLID OFF EDGE OF COUNTER AND POURED HOT OIL ON HIM.

1/1/86 - 0 years. A MALE CHILD WAS SEVERELY BURNED WHEN HE PULLED A DEEP FRYER OF A TABLE TOP SPILLING THE CONTENTS ONTO HIM.

6/5/86 - 12 months. CHILD PULLED DEEP FRYER AND SPILLED HOT OIL ON HIMSELF.

6/14/86 - 10 months. PULLED SMALL HOT FRYER ON HIMSELF

8/1/86 - 12 months. BURN ABDOMIN - CHILD PULLED deep fryer OVER ON SELF – GREASE BURN

11/11/87 - 2 years. PULLED ELECTRIC DEEP FRYER ONTO HEAD. BURNS TO FACE, EARS, ARMS.

1/1/88 - 15 months. A 15-MONTH OLD BOY DIED DUE TI BURNS HE RECEIVED AFTER HE PULLED A MINI-FRYER FULL OF HOT GREASE OVER ON TOP OF HIM.

2/3/90 - 0 years. A FEMALE INFANT WAS SERIOUSLY BURNED WHEN AN ELECTRIC DEEP FRYER FELL ON HER SPILLING HOT OIL.

1/19/91 - 12 months. COUNTER ONTO SELF 2ND DEGREE BURNS 60 PER CENT BODY/BURN CENTER BY AIR

2/22/91 - 22 months. PT WAS AT HOME WHEN HOT GREASE FROM deep fryer SPILLED OVER-GREASE BURNS 1ST AND 2ND DEG. SHOULDERS & ARMS 10% BODY AREA

6/14/91 - 4 years. A 4 YEAR OLD MALE WAS BURNED AFTER UPSETTING A DEEP FAT FRYER OF HOTGREASE IN HIS HOME

5/24/92 - 2 years. A 2 YEAR OLD FEMALE WAS SEVERELY BURNED WHEN A DEEP FRYER SPILLED OVER ON HER.

10/4/93 - 20 months. A 20 MONTH OLD FEMALE WAS SERIOUSLY BURNED AFTER PULLING A DEEP FRYER FULL OF HOT GREASE OFF A COUNTER ON HER.

1/20/94 - 10 months. GREASE BURN FROM A HOT FRYER AT HOME. DX: SECOND DEGREE BURN TO RT. LEG (CALF AREA).

6/28/95 - 2 years. PATIENT PULLED LOT-GREASE FROM FRYER OFF OF COUNTER TOP ONTO HIS BACK – MULTISYSTEM ORGAN FAILURE TO INCLUDE RENAL, RESPIRATORY & LIVER FAILURE; ACUTE RESPIRATORY DISTRESS FAILURE/SYNDROME – SEPTIC SHOCK SYNDROME – AUTOPSY NO

1/5/96 - 4 years. A DEEP FRYER, FILLED WITH HOT COOKING OIL, WAS SET ON A KITCHEN COUNTER. THE PRODUCT HAD BEEN USED TO PREPARE FRENCH FRIES. A FOUR YEAR OLD FEMALE WAS SEVERELY BURNED WHEN THE DEEP FRYER TOPPLED OVER, SPILLING OIL ON THE VICTIM. THE PRODUCT'S PLASTIC LID WAS NOT ON AT THE TIME.

4/5/96 - 6 years. THIS INVESTIGATION WAS INITIATED THROUGH A NEWSPAPER ACCOUNT OF A SIX YEAR OLD FEMALE WHO WAS BURNED OVER 12% OF HER BODY WHEN THE DEEP FAT FRYER HER

MOTHER WAS GOING TO USE TO COOK FRENCH FRIES FOR THE EVENING MEAL FELL OVER ONTO THE FLOOR. THE HOT OIL IN THE FRYER SPILLED ONTO HER CHEST, FACE, ARMS, AND FEET, SEVERELY BURNING HER. THE FRYER, WHICH WAS APPROXIMATELY FOUR YEARS OLD AT THE TIME OF THE INCIDENT DID NOT HAVE A COVER AND WAS DISPOSED OF BY THE PARENTS. THE FRYER WAS BEING PREHEATED, USING A REPLACEMENT CORD PURCHASED BY THE MOTHER.

4/22/96 - 2 years. SECOND DEGREE BURNS TO BACK AND BOTH FEET, ELECTRIC DEEP FRYER TURNED OVER AND HOT GREASE SPILLED ON PT

5/27/96 - 2 years. 10% BSA 1ST AND 2ND DEGREE BURNS LT TORSO-PULLED FRY DADDY FULL OF HOT GREASE ON HIMSELF AND BROTHER

10/7/96 - 3 years. 3 YR FEMALE SUSTAINED BURNED FEET WHEN TIPPED OVER DEEP FRYER.

10/18/96 - 13 months. BURNED FOOT WHEN PULLED FRYER SPILLING GREASE

11/13/98 - 2 years. 2 YOM PULLED DEEP FRYER OVER ON HIMSELF. BURNS TO CHEST.

3/18/99 - 11 months. PT. AT HM WHEN HE PULLED A Deep Fryer OIL COOKER FILLED W/HOT OIL IN IT ONTO SELF, PT SUST 35% 2ND/3RD DEG BURNS TO BODY. E924.0 TIME 12:30

7/23/99 - 8 months. BURNS TO RIGHT SIDE OF BODY BY HOT GREASE FROM DEEP FRYER. MAJOR BURN/?VSD

7/31/99 - 12 months. PT'S FATHER FOUND HIM ON KITCHEN FLOOR NEXT TO DEEP FRYER, WHICH HAD BEEN PLUGGED IN (PER CHART) DX: 2ND DEGREE BURNS TO 15% OF BODY

12/3/99 - 6 years. PULLED DEEP FRYER ON HIMSELF/PARTIAL THICKNESS BURNS NECK AND ABDOMEN

7/22/00 - 4 years. FAMILY WAS HAVING A FISH FRY AND PT TRIPPED OVER AN EXTENSION CORD & KNOCKED OVER THE POT HOT GREASE & FISH. D: 2ND DEGREE BURN R FOOT.

Unknown - 0 years. CHILD WAS BURNED WHEN DEEP FRYER TIPPED OVER.

SAFETY BRIEF

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