s r s arc an r port was pro uc by C C nt r or Construct on s arc an ra n n as part o a coop rat v a r nt w t t at ona Inst tut or ccupat ona a ty an H a t I H H (, — r s arc s so y t r spons b ty o t aut ors an o s not n c ssar y r pr s nt t o c a v ws o I H C t r s arc an tra n n ar o t Bu n an Construct on ra s D part nt AFL CI s un qu y s tuat to s rv wor rs contractors an t sc nt c co un ty For or n or at on v s t www cpwr co

s r s arc was con uct w t r str ct acc ss to Bur au o Labor tat st cs BL ata v ws xpr ss r o not n c ssar y r ct t v ws o t BL

s — , r port up at s on or na y ssu n — an up at n — an — ,

Acknowledgment

au Moor a ty En n r D v s on o a ty s arc I H prov FACE r ports to ass st w t pr parat on o t s r port Jan G tt an or r Assoc at D r ctor or a ty an H a t s arc C an Mar Mu ns at ona Coor nator E vator In ustry or r s rvat on Fun prov r v w r co nts u Don Data C nt r D r ctor C prov at an n ury rat n or at on

Abbreviations

A ME	A r can oc ty o M c an ca En n rs
BL	Bur au o Labor tat st cs
CF I	C nsus o Fata ccupat ona In ur s BL

Deaths and Injuries Involving Elevators or Escalators

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September 2013

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Executive Summary

s r port

Introduction

E vators an sca ators ar pot nt a sourc s o s r ous n ur s an at s to t n ra pub c

Figure 1. Deaths related to work on or near elevators, by occupation, 1992-2009.

A t ou vator constructors ar v rou y qua y b tw n construct on an n ra n ustry t a or ty o t at s n t s roup a ct p oy s o construct on contractors

rat o at s o vator constructors app ars to av cr as n r c nt y ars Fro _ _ _ vator constructors wor n n t construct on s ctor a a wor r at at rat t at was or t an oub t rat o a construct on wor rs _ at s p r u t p oy s F Es co par to , at s or a construct on wor rs c nt stat st cs ro _ , _ s ow t at construct on vator constructors a

Figure 3.

A t ona Data ourc s

at ona Inst tut or ccupat ona a ty an H a t I H nv st at s wor r at at s t rou ts Fata ty Ass ss nt an Contro Eva uat on FACE r ports ttp www c c ov n os ac s r ports ar pro uc t rou nv st at ons con uct by I H r s arc rs at t ra v o ov rn nt an by stat a t part nt p rsonn tas w t nv st at n an ass ss n wor r at ata t s at t stat v FACE r ports nc u vator r at at s ro t y ar t FACE pro ra b an unt s at s ar cons st nt w t BL u n s or nc us on n t BL C nsus o Fata ccupat ona In ur s r ports an ar nc u n t CF I narrat v s I H FACE r ports nc u

a s own vator s a ts w t ur n construct on ur n

Labor tat st cs ata In or at on on non occupat ona pass n r r at n ur s an at s c r n or p op us n vators at o or n a stor was obta n ro C C at ona E ctron c In ury urv anc yst ata

E vator ass n r D at s

Working passengers: C ana ys s o ata ro t Bur au o Labor tat st cs s ow vator r at pass n r at s ro a on p op us n vators w at wor an av ra o v at s p r y ar *see* s nc u sup rv sors ana rs c r s stoc an rs an tors c an rs an t r sup rv sors p us a w var ty o ot r occupat ons r t s o t s at s nvo v a s a ost a t a s nto vator s a ts nc u n , at s occurr w n an vator oor op n an t r was no vator car u to t car av n t oor n qu st on an t o stway nt r oc or oor c os r a c an ca y or ctr ca y cau t n b tw n an struc by at s ost y nvo v p op tt n cau t n t vator oor or b tw n t vator an oor or s a t ot n cat ory nc u vator co aps s

Figure 4. Deaths among elevator passengers while at work, by cause, 1992-2009.

Source: Fata n ury ata w r n rat by C w t r str ct acc ss to t Bur au o Labor tat st cs CF I s arc F

Passengers not at work: Fro to t C C r port non wor r at at s o vator pass n rs about v at s p r y ar Fa s caus ov r a t at s *(see* About a t a s w r to t sa v s ps an tr ps sp c a y w x t n ro n ac n a t

o Is an out Da ota nn ss xas , r n a as n ton
st r n a an scons n , ocat on stat o _pass n r at s was not r cor
xt n o t at s nvo v c r n o a or youn r

Figure

n t n t tat s t C C st at t at t r w r acc nts p r sca ator an
acc nts p r vator annua y In t C C st at t at t r ar osp ta
r ncy roo tr at n ur s assoc at w t sca ators ac y ar C C

C C st at t at o t sca ator n ur s r su t ro a s ro ntrap nt
at t botto or top o an sca ator or b tw n a ov n sta r an sca ator s wa an o
t nc nts w r cat or as ot r nc u n su n stops o t sca ator an r v rsa o
r ct on cau t n nc nts n ra y r su t n or s r ous n ur s t an a s
part cu ar conc rn s t act or or b b ac pp s xn t
o nr r r a w r tor J w a c a

Recommendations

n n s ro t s ana ys s o t a or caus s o vator an sca ator at s an n ur s r su t n t o ow n r co n at ons

s A quat Loc out a out roc ur s

Mor t an a o t wor r at vator at s w r caus by t r a ur to nsur t at vator parts cou not ov w a nt nanc or r pa rs w r un rway or a ur to n r vator ctr ca c rcu ts Many cau t n b tw n struc by an so a at s r su t ro t na v rt nt ov nt o vator parts s t r typ s o a ur s a so caus ost o t wor r at sca ator at s

a wor pract c s an at oc out ta out w n r pa r n an r novat n vators an sca ators Loc out proc ur s ar part o HA s stan ar or contro o a ar ous n r y

rop r a prot ct on ust a ways b us t r s a a a ar t or n ra n ustry an t or construct on [a] I n n r n contro s ar not pract ca p rsona a prot ct on syst s ar r qu r A quat anc ora po nts or p rsona a prot ct on qu p nt ust b stab s an wor rs ust b t o to t w wor n HA a so as r qu r nts or t us o a rs CF an an CF an

porary structur s ust b stab an stron nou to support t w t an act v ty o t wor r s s structur s

s s an tra n n to carry out a ob but a so ncorporat s nts to nsur t a quat sa ty an a t o t wor r n a n t act v ty L c ns n or vator r at pro ss ons usua y nvo v s bot ucat on an ocu nt wor xp r nc

References

Annex 1. Examples of NIOSH FACE Summaries of Elevator- and Escalator-Related Deaths

s xa p s ar nc u to v ta xa p s o t typ s o ata nc nts nvo v n vators an sca ators an r co n pr caut ons

Maryland Division of Labor and Industry
FACE Report 96MD05501

p as n t portanc o r co n n an contro n a ar s n t wor p ac s proc ur s s ou nc u but not b t to con uct n a ar va uat ons b or n t at n wor at a ob s t an p nt n appropr at contro s

- I nt y ar as t at ay b a ar ous to p rsonn an r str ct or pro b t t us o or acc ss to t s ar as

California Department of Health Services
FACE Report 94CA01401
Elevator Maintenance Worker Dies from Fall in an Elevator Shaft in California

MMA Y

A , y ar o w t non H span c a vator a nt nanc wor r t v ct a t r a n approx at y , t nto an vator s a t At t t o t nc nt t c nt an two cowor rs w r pu n a y rau c p ston out ro t botto o t vator s a t so t at a n w n r cou b nsta r or to p r or n t s op rat on t wor rs a nsta an ctr ca y pow r bas ount capstan a r vo v n barr on a v rt ca ax s or w n n cab or cat a n t botto o t vator s a t w c was to b us as a o st to t t p ston up to t top o t s a t Co wor r a b n s nt to t ourt oor so t at cou n or t ot r wor rs w n t p ston r ac t top o t s a t v ct was wor n ro t rst oor an co wor r was at t botto o t s a t Co wor r y w n t p ston t t top o t vator s a t but s co

- vator s rv c co pany s ou v op proc ur s or so at n t pow r sourc o vators t at prot cts p oy s ro contact w t a ar ous n r y w n nt r n p t ar as
-

t at on out County J

- an a ro vator t at stopp nc s s ort o v oor contus n bot n s

Workers' Compensation Board of British Columbia
www wor sa bc co

Hazard Alert 03-05: Young worker injured in elevator shaft
In ustry rv c
A y ars
Ar a Low r a n an
A rst y ar vator appr nt c was wor n ns an vator s a t o a bu n un r construct on s youn wor r was not awar t at an vator n t s s a t was st b n t st or op rat on by an vator c an c wor n n t vator ac n ry roo youn wor r was squ nto a nc spac w n t vator car ov ro on oor to anot r H susta n bru s n to t bac an ront o s torso An acc nt nv st at on r v a t at t wor rs not co un cat w t ac ot r an not o ow oc out proc ur s youn wor r a not r c v a quat nstruct on an tra n n act v t s o t wor rs a not b n a quat y sup rv s

Safe work practices:

- p oy r ust nsur t at a wor rs ar a quat y tra n nstruct an sup rv s n t sa p r or anc o t r ut s
- Loc out proc ur s ust b o ow w n wor n ns an vator s a t