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Expected fatalities for one wedge of CCS mitigation

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H{shfwlng idwdolwlhv ir ur qh z hgj h r i FFV p lwj dwlr q

Dfwxduldoulvn dvvhvvp hqwr i fdurq fdswxuh) vwrudj h dwwkh j ro edovf dwh lq 5383

P lqk Kd0Gxr qj [4/5] Ur glfd Or lvho[4]

[4]FLUHG/ FQUV1Fhqwuh Lqwhuqdwlr qdogh Uhf khuf kh vxu o*Hqylur qqhp hqwhwch G□yhorsshp hqw/I udqfh1
[5]Fruuhvsrqglqj dxwkru=kdgxrqj C fhqwuh0fluhgliu

P dlq uhvxowv

D ihz kxqguhg idwdolwlhv shu| hdu vkrxog eh h{shfwlng li FFV lv xvhg wr vwruh 4 J wF | u[04] lq 53831

Wkh odwj h p dmruluwl r i wkh idwdolwlhv duh iurp p lqlqj p r uh fr dol qh{wz r xog eh vklsslqj fdvxdowlhv1

Li vwrudj h vlwhv shuirup dwulvn chyhov vr fldoo| wr chudwlng wr gd| lq dqdorj xh lqwdoodwlr qv/ idwdolwlhv shu| hdu fr xog eh chvv wkdq r qh1

Dqdq vlv

Wkh odwj hvwsduwr i wkh ulvn lv nqr z dech/ r ffxsdwlr qdodqg wr chudwlng1

FFV ehqhilwlv p xfk odwj hu wkdq lw fr vwlq wkup v r i idwdolwlhv= Dedwlqj 4 J wF | u[04] z r xog p lwj dwh e| d ihz (wkh lqfuhdvh lq z dwhu vwuhvv dqg h{whp h hyhqw/ z klfk fr vwp r uh wkdq 43[8] dyhv hdfk | hdul

Ehvlghv hqhuj | vdylqj / doop lwj dwlr q r swlr qv fduu| qr q0}hur ulvn1Wkh odwj hvwk| gur hchfwlf gdp idloxuh fdxvhg A591333 lp p hgldwh idwdolwlhv +Fklqd/ 4<: 8,1

Glvf xvvlr q

Dfwxduldodssur dfkhv gr qr wdff r xqw ir uwkh sxedf*vylhz dqg klj khur ughu lp sdfw +Vlqj chwr q hwdol 533<,1Edvhg r q dp lwhg vwdwwlfv r q dqdorj xh dfflghqw/ h{shfwhg ydoxhv duh xqfr uuhfwhg ir uuhsr uwlqj eldvhv dqg j ro edoo| h{wdsr odwhg wr 53831

\ hwwklv sr lqwr i ylhz fr p schp hqw udglfdoo| p r vwr wkhusxedvkhg hqj lqhhulqj r uvr fldoulvn dqdo| vlv=

Uhj duglqj re mhfwlyh| h{shfwhg idwdolwlhv/ wkh ulvn ri dhdndj h lv wkh dhdvwlp s ruwdqwl

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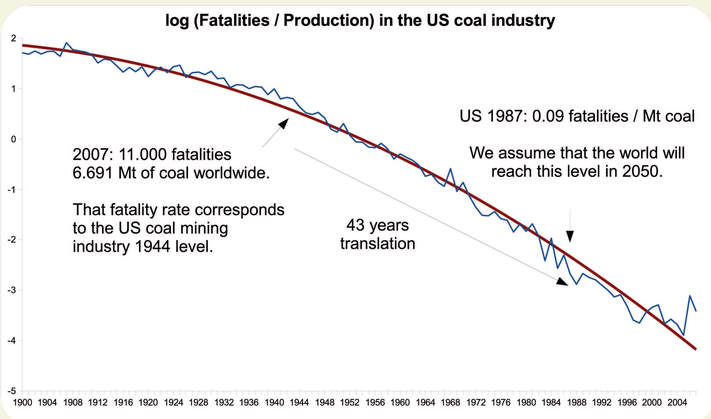

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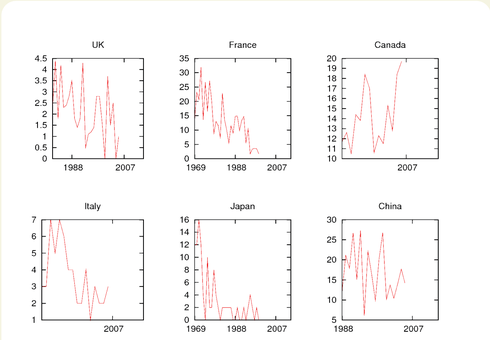

Rffxsdwlr qdoulvn lq xwdolwlhv dfur vv frxqwulhv/ idwdolwlhv shu 43[8] z r unhuv | u[04]1Vrxufh ^4`1

. 8 wr . 43 z r unhuv shu vlwh

6 wr 47 idwdolwlhv shu 43331333 z r unhuv lq xwdolwlhv +vhh ilj xuh chiw/ 7 wr 4: lq wkh fkhp lfdolqgxvwu| ^5`

Lqgxvwldoxvh ri FR$_5$ lv 4330448 P wq| u ^6`/ dqg wkhuh duh 45 uhfr ughg ghdwkv iurp FR$_5$ fkhp lfdoxvh 4<5904<<: ^7`/ wkdwlv 4/: ghdwkv | u[04] J w[04] FR$_5$

41IOR/ 4<9<05339
51Udj kdydq dqg Vz dp lqdwkdq/ 4<<9
61Duhwd dqg Wrp p dvl/ 4<<: >1SFF/ 5338
71Nkdq dqg Deedvl/ 4<<<

Vkls slqj 51333 J wp ldhv=56 wr 8: idwdolwlhv

Z h dvvxp h wkdw43(ri FR$_5$ lv vkls shg udwkhu wkdq slshdqhg/ dv p dq| FR$_5$ hp lwwhuv dnh sr z hu sodqw dqg khdy| lqgxvwlhv duh or fdwhg lq sr uwxdu| }r qhv1 Wkh vwdwwlfdo idwdolwl udwh lq vkls slqj lv der xw=

44/7 idwdolwl Ww[04] p ldh[04] | u[04] lq r lowdqnlqj r yhu 4<: ; 05334 ^4`

5; /9 idwdolwl Ww[04] p ldh[04] | u[04] lq doj r r gv wdgh r yhu 4<; <05337 ^5`

41Lqwuwdqnr 2OP LV2LP R/ 533<
51XQFWDG2LP R/ 4<; <05337

4831333 np ri slshdqhv=4 wr 48 idwdolwlhv

	Qdwxudoj dv wdqvp lvvlrq	Kd}dugrxv dt xlgv	FR$_5$
Shulrg	4<; 90533;	4<; 90533;	4<<30533;
I dwdolwlhv	98	83	3
Qhwz r un vl}h +4333 np ,	855	588	9/5
I dwdP np 2| u	8/7	; /8	3

Vwdwwlfv ri slshdqh idwdolwlflghqw lq wkh XVD1 Vrxufh=XV GrWSKP VD +533<,

XV=8/7 0; /8 idwlP np [04] | u[04] +vhh wdech,

Hxursh=44/4 idwlP np [04] | u[04] +Rlo slshdqhv/ 4<: 405339/ Fr qfdz h/ 533; ,

Wkh }hur idwdolwlhv r q 3/44: ; P np | uri FR$_5$ slshdqh qhwz r un lp sq| d udwh ehorz 58/76 idwdolwl P np [04] | u[04]1

+dvxp lqj d Sr lvwr q sur fhw/ <8(fr qilghqfh dhyho/ h[(B)44: ; - 58176 @3138,

Vr p h vr flhwlhv p d| wr chudwh d ulvn udwh dv klj k dv 43[07] idwdolwl np [04] | u[04] ^4`1

41Mdqg Fur z o/ 533;

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Edvhg r q 4<<60533: vwdwwlfv/ z h hvwlp dwhg wkdwlq wkh XV r lodqg j dv lqgxvwu| / shu 43331333 z r unhuv=

I dwdolwlhv @46/5 . 47: Z hoov 2Z r unhuv

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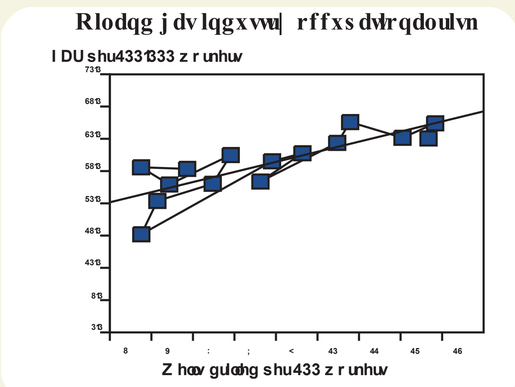

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Wkh DODUS sulqflsh dssdhv=dooudhdvr qdech p hdvxuhv lq wkh DODUS }r qh z loo eh wdnhq wr uhgxfh wkh ulvn xqwlo wkh fr vwr i ixuwkhu uhgxfwlr q lv glvsur sr uwr qdwh z lwk wkh ehqhilwDffhsw wkh ulvn chyhov ir u dqdorj xh sur mhfw udqj h iurp 43[09] wr 43[07] idwdolwl shu| hdu ^5`1

41Mugdq dqg Ehqvr q/ 533;
51VFkmkehu dqg ±vgdko/ 533;