



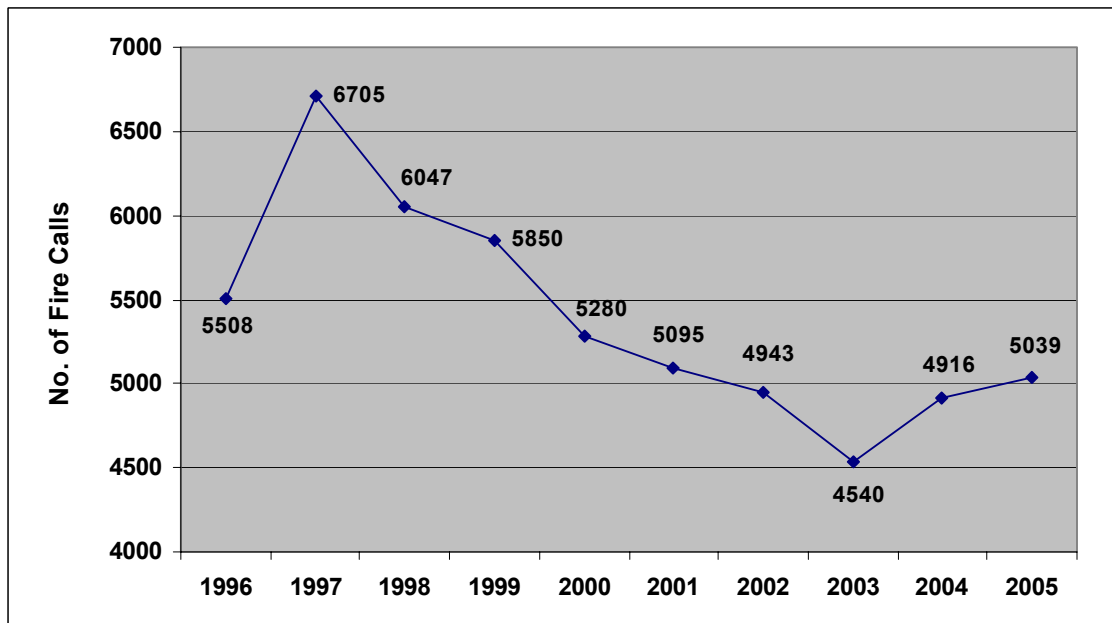
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SINGAPORE CIVIL DEFENCE FORCE

STATISTICS ON FIRE INCIDENTS (JAN – DEC 2005)

TOTAL FIRE CALLS

1. In 2005, SCDF responded to a total of 5039 fires in Singapore. Although this figure marginally exceeds that of 2004 by 123 cases (3%), it remains relatively low when compared to records of previous years. See **Graph 1**. The increase of fire incidents in 2005 is attributed to the sharp increase in non-building fires, primarily due to the record high number of vegetation fires during the dry spell in early 2005.



GRAPH 1: FIRE CALLS ATTENDED BY SCDF FROM 1996 TO 2005

GENUINE FIRE CALLS

2. Of the 5039 calls, 3056 involved residential premises, while 635 commercial and industrial premises. The remaining 1348 cases were non-building fires. See **Table 1**. Non-residential fires refer to those affecting commercial, industrial, social and communal premises. Non-building fires involve those involving vegetation, rubbish (at open ground) and vehicles.

DESCRIPTION	Jan-Dec 2004	Jan-Dec 2005	Absolute Change	% Change
Residential Premises	3210	3056	-154	-5
Non Residential Premises	681	635	-46	-7
Non Building	1025	1348	+323	+33
TOTAL	4916	5039	+123	+3

TABLE 1: BREAKDOWN OF GENUINE FIRE CALLS

RESIDENTIAL FIRES

3. Of the 3056 residential fires, 2889 cases involved HDB flats which fell by 152 cases. The other categories of residential premises listed in **Table 2** registered slight changes. Fires involving landed properties increased from 89 in 2004 to 95 last year. Private condos saw 13 less fires, recording only 64 fire incidents last year. Workers' Quarters went up by 5 cases last year to reach 8 cases. While this is a minimal change, such quarters do house many people, thereby more lives are at stake. Of the 8 fires at these quarters last year, 2 were found to have been illegal quarters. The contractors concerned were fined \$300 each.

DESCRIPTION	Jan-Dec 2004	Jan-Dec 2005	Absolute Change	% Change
HDB Flats	3041	2889	-152	-5
Landed Properties	89	95	+6	+7
Private Condo	77	64	-13	-17
Workers Quarters	3	8	+5	+167
TOTAL	3210	3056	-154	-5

TABLE 2: BREAKDOWN OF GENUINE FIRE CALLS (RESIDENTIAL)

Rubbish fires

4. **Table 3** shows the different types of residential fire outbreaks in 2005. Once again, rubbish fires continued to be the main component of the total fires at residential premises last year, accounting for 58% (ie. 1777 rubbish fires). Of these, 1050 comprises rubbish chute fires, 405 rubbish/discarded items fires, and 322 rubbish bin fires. Although there was a drop of 36 cases from the previous year, it remains disturbing for such fires can be easily prevented.

TYPES OF RESIDENTIAL FIRES	Jan-Dec 2004	Jan-Dec 2005	Absolute Change	% Change
Rubbish Fires (Rubbish chutes, discarded items & rubbish bins)	1813	1777	-36	-2
Unattended Cooking	529	549	+20	+4

Contents*	406	358	-48	-12
Electrical Fires	206	181	-25	-12
Bicycles/Motorcycles	68	44	-24	-35
Gas	42	26	-16	-38
Others**	146	121	-25	-17
Total	3210	3056	-154	-5

* Contents include furniture, clothing, awning, mattresses, praying altar, door mat.

** Others include notice boards, banners and lifts.

TABLE 3: TYPES OF FIRES IN RESIDENTIAL PREMISES

Rubbish chute fires

5. Common causes of rubbish chute fires include indiscriminate and irresponsible disposal of lighted materials such as cigarette butts, charcoal and incense materials. This type of fire increased by 10 cases last year. To further raise awareness of preventing such fires, SCDF and NFPC rolled out a public education program in December last year. For a start, there were 2 blocks where repeat cases of rubbish chute fires which occurred at Admiralty Drive¹ and Marine Drive². These were identified as rubbish chute fire 'hot spots' and were visited by RC members and SCDF personnel who advised residents on eradicating such fires.

Rubbish bin fires

6. Blazes involving rubbish bins at common space such as lift lobbies contributed to 11% (322 cases) of total fires at residential premises. Although such fires tend to be small and may not cause serious harm, the resultant smoke can be a source of irritation to residents. The public is urged not to throw lighted materials at rubbish bins to cut down such fires.

Rubbish/discarded items fires

7. Last year, there were 405 cases of rubbish/discarded items fires. While this is a fall of 31 cases over 2004, residents should note that bulky items placed along corridors and lobbies impede smooth evacuation during emergencies. They also make 'ready' fire load for fire mischiefs and incendiary fires.

Unattended cooking

8. The number of fires involving unattended cooking increased by 4% last year to hit 549 cases. These fires are usually caused by absent-mindedness of occupants.

¹ 6 cases of rubbish chute fire occurred at Blk 360A Admiralty Drive in 2005.

² 4 cases of rubbish chute fire occurred at Blk 74 Marine Drive in 2005.

NON-RESIDENTIAL FIRES

9. Of the 635 non-residential fires last year, 314 involved commercial premises while 159 involved industrial premises. The remaining 162 cases were social/communal premises. See **Table 4**.

DESCRIPTION	Jan-Dec 2004	Jan-Dec 2005	Absolute Change	% Change
Commercial	340	314	-26	-8
Industrial	197	159	-38	-19
Social/Communal	144	162	+18	+13
TOTAL	681	635	-46	-7

TABLE 4: FIRE INCIDENTS AT NON-RESIDENTIAL PREMISES

Commercial premises

10. 314 fire incidents last year involved commercial premises. This is a drop of 26 cases or 8% over 2004. Out of these 314 cases, 54 of them occurred at Multi-storey Car Park (MSCP) - 16 cases higher than the figure in 2004. Most of these MSCP fires involved rubbish (eg. rubbish bins and discarded items), accounting for about 46% (ie. 25 cases) of total fire outbreaks in such car parks.

11. The other major component of MSCP fires are related to vehicle fires. Last year, there were 26 vehicle fires at MSCPs, compared to 16 cases in 2004. Out of these 26 vehicle fires, 17 cases involved motorcycles, which is an increase of 11 cases over 2004's figures. Bedok, Tampines and Hougang have registered higher frequency of motorcycle fires at MSCPs last year. About 80% of vehicle fires (ie. 21 cases) in MSCPs last year were incendiary in nature.

12. Members of public can help to lower fires at MSCPs by being more vigilant and by reporting to the management and the Police when fire hazards or suspicious people are spotted at the buildings.

Industrial premises

13. Fire outbreaks at industrial premises fell by 38 cases (19%) last year to 159 cases, from 197 in 2004. The sharpest drop was in fires at flatted factories, which dropped from 58 cases in 2004 to 38 last year. Fires at industrial compounds similarly fell last year, from 94 in 2004 to 85. Fires at warehouses (26 cases) and HDB/JTC units (10 cases) also spotted similar trend, falling by 4 and 5 cases respectively.

NON-BUILDING FIRES

14. Non-building fires (including vegetation and vehicles) grew last year, from 1025 instances in 2004 to 1348 last year. This can be attributed to the huge 60% increase (ie. 300 cases) in vegetation fires experienced last year. See **Table 5**.

DESCRIPTION	Jan-Dec 2004	Jan-Dec 2005	Absolute Change	% Change
Vegetation	500	800	+300	+60
Rubbish (in open space)	231	241	+10	+4
Vehicles	177	168	-9	-5
Others*	117	139	+22	+19
TOTAL	1025	1348	+323	+32

* Others include bus stops, tentage and canvas.

TABLE 5: FIRES INVOLVING NON-BUILDINGS

DESCRIPTION	2001	2002	2003	2004	2005
Number of Vegetation fires	242	519	355	500	800

TABLE 6: VEGETATION FIRES OVER LAST 5 YEARS

15. To help prevent vegetation fires, members of public are advised not to throw lighted materials such as cigarette butts and match sticks on grass patches, gardens and fields. Unwanted items (including discarded furniture) should not be dumped in open fields which can serve as fuel to burning vegetation.

16. SCDF has worked with Related Agencies to put in place suitable measures against bush fires. This includes exchange of useful information such as dryness index provided by the Meteorological Service to SCDF so that dry spells and areas affected could be pre-empted. With this information, SCDF will patrol the affected areas during the hottest period of the day, which is between 2pm and 4pm, to water these areas to prevent fires from starting.

17. Based on SCDF's input, PUB has also been installing dry hydrant systems to provide ready water source for firefighting operations at terrains which have inadequate water supplies. Such systems have been installed at Tampines Ave 12 and Fort Road. Separately, SLA and NParks has been engaging its land occupants to regularly trim the grass and to provide buffer zones to key agricultural areas.

CAUSES OF FIRES

18. Major causes of fires in Singapore last year include 'light thrown down' and overheating of food'. Together, they have resulted in 3691 fire outbreaks, or 73% of total fire incidents in Singapore. See **Table 7**.

DESCRIPTION	Jan-Dec 2004	Jan-Dec 2005	Absolute Change	% Change
Light thrown down	2885	3090	+205	+7
Incendiary/Suspicious	371	376	+5	+1
Overheating of Food	585	601	+16	+3
Electrical Origin	566	498	-68	-12
Naked Light	301	277	-24	-8
Others	208	197	-11	-5
TOTAL	4916	5039	+123	+3

TABLE 7: CAUSES OF FIRES

19. Fires caused by 'light thrown down' last year increased by 205 cases which account for 61% of total fire outbreaks. Preventing indiscriminate disposal of lighted materials (such as cigarette butts) or indiscriminate storage of discarded items especially highly combustible materials (such as wooden furniture) in open/common spaces can reduce fires caused by 'light thrown down'.

20. Incendiary fires climbed slightly to 376 cases last year, from 371 cases in 2004. Electrical fires on the other hand fell by 68 cases to 498. Also decreasing last year were fires caused by 'naked light' (eg. lit candle and oil lamp), which dropped from 301 cases in 2004 to 277 cases.

FIRE INJURIES

21. The number of injured fire victims fell by 20 (15%) from 131 in 2004 to 111 last year.

22. In 2005, SCDF rescued 111 casualties from fire related incidents. Out of which 6 were trapped and SCDF had to break into their units to rescue them. This was a slight increase of 11 (11%) from 2004, which saw 100 casualties rescued.

DESCRIPTION	2004	2005	Absolute Change	% Change
Number of casualties saved	100 (out of 55 incidents)	111 (out of 83 incidents)	+11	+11
Number of trapped casualties	13 (out of 5 incidents)	6 (out of 9 incidents)	-7	-54

TABLE 8: NUMBER OF CASUALTIES SAVED FROM FIRE INCIDENTS

FIRE FATALITIES

23. There was 1 fire death last year, compared to 7 in 2004. The fatality (a male Malay) was involved in a HDB fire at Bukit Batok West Ave 2 on 16 May 2005. That fire also led to the injury of a female Malay who suffered burns on her arms and body.

DESCRIPTION	2001	2002	2003	2004	2005
Number of fire fatalities	11	0	1	7	1

TABLE 9: FIRE FATALITIES OVER LAST 5 YEARS

FIRE SAFETY ENFORCEMENT STATISTICS
(JAN – DEC 2005)

1. SCDF conducts enforcement checks on a regular basis to ensure that fire hazards and violations are detected and rectified. Last year, SCDF served 409 Fire Hazard Abatement Notice (FHAN). This is a fall of 402 (50%) in numbers from the 811 FHAN issued in 2004. See **Table 1**.

Nature of Hazard	2004	2005	Absolute Change	% Change
Firefighting equipment (hosereel/fire extinguisher) not properly maintained	241	104	-137	-57
Obstruction to exits	102	66	-36	-35
Storage of combustible (eg. furniture) / flammable (eg. LPG cylinder) materials	86	62	-24	-28
Exit signs out of order	61	31	-30	-49
Storage within staircase /hosereel /risers	81	26	-55	-68
Indiscriminate storage & display of goods/items	66	20	-46	-70
Fire alarm system not properly maintained	22	20	-2	-9
Locked exits	12	11	-1	-8
Storage along perimeter fencing	121	11	-110	-91
Others* (includes non-compliance to approved building plans; engine running while refuelling; etc)	19	58	+39	+205
Total	811	409	-402	-50

TABLE 1: FHAN (BREAKDOWN BY HAZARD TYPES)

2. The sharp drop in the number of FHAN served in 2005 has made last year's figure the lowest since 2001. That year registered 770 FHAN. In terms of percentage, only 4% of the inspections required the issuance of abatement notice. See **Table 2**.

	2001	2002	2003	2004	2005
Number of FHAN	770	1459	910	811	409
Number of inspection	2056	10,022	10,984	11,297	10,103
% of FHAN to inspections	38%	15%	8%	7%	4%

TABLE 2: 5 YEAR TREND OF FHAN

3. While it is encouraging that the number of FHAN has dropped significantly over the years, signifying greater level of compliance to fire safety requirements, the 409 cases of hazards detected by the SCDF still warrants attention. Every hazard has the potential to result in fire, causing injuries and damages to properties. Every effort

therefore must be taken by members of public to ensure that fire hazards are reduced, thereby lowering fire risks in our environment.

4. A bulk of the number of FHAN served last year was for poor/unsatisfactory maintenance of firefighting equipment such as hoses and fire extinguishers. Despite the drastic drop in FHAN from 241 in 2004 to 104 last year, it is important to note that such equipment serve as first line defence against an outbreak of fire. Timely use of such equipment can save lives and prevent destruction to properties.

5. Obstruction to exits continued to be a common fire hazard detected during inspections. The number of FHAN last year for exit obstructions fell from 102 to 66. Members of public and building owners/management must recognise that blocking exits can hinder evacuation and access of firefighters/rescuers during emergencies.

6. The next most common hazard resulting in FHAN last year related to storage of combustible and flammable materials. There were 62 such cases in 2005, compared to the 86 cases in 2004. Although the number of FHAN related to such cases saw a fall of 28% (ie. 24 cases), SCDF continues to stress the significance of good housekeeping, including not indiscriminately storing combustibles and flammables within premises which during a fire outbreak, can add significant burning load to worsen the fire.

Types of premises	2004	2005	Absolute Change	% Change
Industrial	552	275	-277	-50
Commercial	80	51	-29	-36
Public entertainment	65	34	-31	-48
Others*	114	49	-65	-57
Total	811	409	-402	-50

*Others include residential premises, shophouse, community centres

**TABLE 3: FIRE HAZARD ABATEMENT NOTICE
(BREAKDOWN BY PREMISES)**

7. The number of FHANs served to premises of all sectors as seen in **Table 3** saw a dip, between 36% and 50%. The biggest drop was for industrial premises, followed by public entertainment premises and commercial premises.

Type of Offence	2004	2005	Absolute Change	% Change
Change of use	47	79	+32	+68
Carrying out fire safety works without approval	55	59	+4	+7
Storage &/or transportation of Petroleum &/or Flammable Materials without licence	48	39	-9	-19
Overnight parking (with LPG)	42	29	-13	-40
Others*	33	50	+17	+52
Total	225	256	+31	+14

*Others include failure to obtain Fire Safety Certificate; failure to comply with fire safety guidelines for temporary buildings; & breach of Temporary Permit (TP)

TABLE 4: NUMBER OF FIRE SAFETY OFFENCE

(BREAKDOWN BY TYPE OF OFFENCE)

8. On the whole, the number of Fire Safety Offence (FSO) issued last year increased by 14% (ie. 31 FSO) compared to 2004. FSO for change of use of premises rose by 32, while that for unapproved fire safety works inched up by 4. See **Table 4**.

Types of premises	2004	2005	Absolute Change	% Change
Industrial	97	126	+29	+30
Commercial	25	40	+15	+60
Public entertainment	6	1	-5	-83
Others*	97	89	-8	-8
Total	225	256	+31	+14

**Others include residential premises, shophouses & community centres*

TABLE 5: NUMBER OF FIRE SAFETY OFFENCE (FSO)

9. More industrial and commercial premises were served with FSO last year. See **Table 5**. FSO for public entertainment premises however saw a decline of 5 cases to just 1 FSO throughout the whole of last year. Violators were fined up to \$500 for each of the FSO.

Types of premises	2004	2005	Absolute Change	% Change
Industrial	22	15	-7	-32
Commercial	11	4	-7	-64
Public entertainment	1	3	+2	+200
Others*	14	-	-14	-100
Total	48	22	-26	-54

**Others include residential premises, shophouses & community centres*

TABLE 6: NOTICE OF COMPOSITION (BREAKDOWN BY PREMISES)

10. **Table 6** shows the declining pattern of violators being slapped with Notice of Composition (NOC). NOC for industrial and commercial premises fell by 7 cases each. Last year. 3 NOC were issued to public entertainment outlets.

11. Under the Fire Safety Act, a FHAN serves as a warning. When the hazard is not abated, a NOC between \$300 and \$500 would be issued – with court action being taken for serious cases. Recalcitrant repeat offenders have dropped markedly, as shown in **Table 6**. For the 409 FHANs served in 2005, there were only 22 instances when NOC had to be issued.

Types of Premises/Location	2004	2005
Industrial	5	1
Commercial	1	3
Public entertainment	-	-
Others*	-	3
Total	6	7

**Others include roads and car parks*

TABLE 7: COURT CASES (BREAKDOWN BY TYPE OF PREMISES)

12. The number of court cases last year was fairly consistent with that of 2004. While more industrial premises were taken to court in 2004, 2005 saw more commercial premises convicted for flouting fire safety requirements. See **Table 7**. **Table 8** gives an indication of the kinds of fire safety offences committed in the last 2 years.

Type of Offence	2004	2005
Failure to comply with storage, dispensing &/or transportation of LPG cylinders Eg. Transportation of LPG without valid licence; excessive/unsafe storage of LPG; illegal dispensing of LPG	1	4
Failure to keep in the cabin the original copy of the valid licence to transport petroleum or flammable materials	-	1
Obstruction to exit & firefighting facilities including fire engine accessway	1	1
Unauthorised change of use	4	-
Failure to comply with Temporary Permit (TP) conditions for Trade Fair	-	1
Total	6	7

TABLE 8: COURT CASES (BREAKDOWN BY TYPE OF OFFENCE)