

Some Dates in South Africa With Regard to the Control of Silicosis

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1886	Mining started on the Witwatersrand and a large number of small shallow mines soon developed, which were ventilated entirely by natural draught. Dry mining except in so far as the ground was naturally wet. All drilling by hand. Two shifts of ten hours, or more common, casual blasting during shifts, cut and round blasted on same shift, no blasting interval and continuous working in development ends. No realization of dust hazard.
1889	Machine drilling started, water used in down holes only.
1892	Long working shifts usual, living conditions poor, men walked in and out of the mines. Miners almost entirely from overseas. Sanitary conditions bad in the mines.
1898	Deep level shafts (3,000 ft.) first sunk.
1900	African labourers first began to use machine drills.
1902	Government Mining Engineer (GME) of the Transvaal Mines Department reports on the silicosis problem in his 1902 report.
1902	Lord Milner, the newly installed Governor of the Transvaal Colony, appoints in November 1902 the Weldon Commission to investigate the causes and extent of silicosis. Determination of dust conditions in working places using a sugar tube sampler. First medical examination (voluntary) of miners.
1902	Chamber international competition for best anti-dust device (from November 1902 – April 1904). Advertisement inserted in papers of the U.K., Europe, Australia, South Africa and America. First prize given for a water spray and second prize for an axial water-fed machine drill. Report of Judges published by Chamber April, 1904.
1903	Hoisting of men in and out of the mines begun.
1903	Transvaal Medical Society recommends wet mining.
1903	Report of the Milner Commission. Cause of the disease identified as the inhalation of small silica particles. The Commission report contained many important and far-reaching recommendations, which included wet drilling as well as the need for planned and controlled ventilation. Warnings were also issued about the dangers of workers entering development ends until blasting fumes had been cleared.
1903	Act No. 54 of 1903, and the Mines and Works Regulations promulgated thereunder, is the first step of a long series of legislative measures to control the conduct of mines in the direction of the use of the best form of preventive measures, which continuous research in the cause and prevention of miners' phthisis showed to be desirable.
1904	A Medical Officers' Advisory Committee was brought into being by the Chamber about 1904 when it was called a Mine Doctors Committee. This later became the Group Medical Officers' Committee to which all the groups were invited to nominate representatives who, it was presumed, would be their senior medical officers.
1906	Dust Prevention Regulations gazetted December 1905 with effect 1 January 1906. Wet methods made compulsory in conjunction with rock drills, and re-entry after blasting restricted. Less than a year after promulgation, regulations withdrawn by H. Weldon on the grounds that the men objected to them!
1907	Mining Regulation Commission (1907-1910) appointed (Krause Commission). In a letter to the Minister of Mines dated 5 th November 1908 the Krause Commission recommended that without delay the mine manager be made responsible in law for the provision of the necessary water and the miners for using it, with regular monitoring by inspectors of the Mines Department.
1907	Some deep level (3-4,000 ft.) mines now producing. Large fans first installed.
1907	South African born nationals began to seek work in the mines in considerable numbers.
1908	New regulations for the prevention of dust gazetted 24 December 1908 with immediate effect. Promulgated by the new GME, RN Kotzé.
1908	Experiments made with dust traps connected to flexible collars over the drill hole, through which the dust was withdrawn by an air ejector. No device found satisfactory in service.
1910	Provision for hospital care and treatment of miners with phthisis provided by the Chamber at Springkell Sanatorium.
1910	The Krause Commission (1910) considered it very clear that efforts must be directed to: (1) the prevention of dust inhalation; (2) the prevention or removal of noxious fumes resulting from explosives; (3) the prevention of tuberculosis.
1910	Medical examination of African labourers prior to engagement begun – tubercular labourers rejected. Change houses and baths for white miners erected. Housing conditions for native labourers, miners and staff improved.
1911	Regulation requiring the use of water blasts in development ends.

1911-1912	Mines' Phthisis (Medical) Commission enquired chiefly into the prevalence of Miners' Phthisis and provisions for compensation
1912-1919	Miners' Phthisis Prevention Committee 1912-1919 established. This Committee conducted extensive investigations into improved methods of dust measurement and dust control. Interim reports - 1912 and 1913, General Report 1916, Final Report 1919.
1913	Research by J. McCrae, South African Institute for Medical Research, on the ash from silicotic lungs showed that particles larger than 12 microns were not present.
1914	Compressed air blown off in development ends to assist ventilation during the working shift.
1914	A.J. Orenstein appointed by the Rand Mines Group in 1914 as their Chief Medical Officer (Superintendent of Sanitation). Dr. Orenstein is considered by many to be the father of occupational health in South Africa.
1914	Chamber Standing Committee on Dust Sampling established to standardise methods for determining dust in mines by periodic surveys. Includes a laboratory for accurately determining dust samples and continued research.
1915	Booklet issued by Chamber for Mine Managers on "Appliances & Methods for Laying Dust in and about Mines". Updates information on sprays and waterblasts for laying dust in mines published by Miners' Phthisis Prevention Committee in 1912. Also includes information on dust control for surface operations: main crusher stations, sample grinding and sample quartering rooms.
1916	The General Report of the Miners' Phthisis Prevention Committee published. Made a number of recommendations for the amendment of the Mining Regulations, and these were substantially incorporated in the amendments promulgated during the year 1917. A tentative air quality standard of 5 mg/m ³ for a sugar tube sample was put forward.
1916	Auxiliary fans begin to be used for development ends, in conjunction with galvanized iron tubing or with bratticed haulages.
1916	Government appointed a dust inspector to assist in the control of dust.
1916	Chamber recommends appointment of "Dust Samplers" on each mine.
1916	Booklet issued by the Chamber entitled "Dust and Miners Phthisis". One object of this booklet, which contained details on dust prevention and measurement, was to ensure that samplers used a standard method when determining the dust content of air.
1916	Series of lectures presented to mine dust samplers in September 1916, at the South African School of Mines and Technology. The lectures were given by J.S. Cellier, Professor of Mining at the School, and ended in January 1917. The training of ventilation officials had commenced.
1916	Sir Robert Kotzé devised the Konimeter. Particles counted under light ground illumination, no treatment of slide. Konimeter adopted for routine work in 1919.
1916	Establishment of Miners' Phthisis Medical Bureau – initial and periodical examinations instituted.
1918	Regulations enforcing dust prevention in crusher stations and assay rooms.
1918	Booklet issued by the Chamber for dust officials which detailed their duties and included all the relevant regulations for dust control.
1919	Final Report of the Miners' Phthisis Prevention Committee. In the early part of 1911 there were eleven Mining Regulations dealing with precautions to prevent miners' phthisis and to ensure good ventilation, by 1918 there were sixty-three such regulations. Air quality standard recommended based on particle count using the Kotzé Konimeter. The report stated "A standard based on the number of particles can, at this stage, be based only on what is readily attainable in practice. Our results have shown that to reduce the dust, as determined by the Kotzé Konimeter, breathed by persons below 300 particles is not difficult in any operation. Anything above this is to be classified as unsatisfactory. Between 200 and 300 may be considered as fair, between 100 and 200 as good, and below 100 as very good."
1919	About half the mines now using fans for the main ventilation.
1919	Silicosis with or without disability made compensatable. Tuberculosis compensatable.
1920	Miners Phthisis Commission - dealt largely with legislation for compensation; also reviewed preventive measures.
1921	Regulation promulgated giving the GME control of the types and makes of machine drills which may be used on "phthisis mines".
1921	An educative silent cinema film "The Dust That Kills", prepared at the instance of the Chamber, widely screened by the African Film Productions, Ltd. The film illustrates the various influences contributing to the incidence of miners' phthisis and the measures employed in counteracting them.
1921	Mine Medical Officers Association (MMOA) formed.
1922-1925	Joint Committee on the Ventilation of Dead Ends. Recommends in 1923 ventilation by auxiliary fans or blowers delivering air on to the face through large diameter pipes. Development and application of Venturi blowers for ventilation of dead-ends in 1924.

1923	Chamber arranged for a course of lectures for mine dust inspectors to be held at the University of the Witwatersrand between August and November 1923. The subjects covered included underground hygiene, phthisis prevention and ventilation. The lecturers were Dr. Mavrogordato and Professor Watermeyer, and at the end of the course an examination was held.
1925	Filtration of dusty air from tips, by means of flannel, tobralco or other fabric experimentally tried. Use of fabric filters gradually extended into common use.
1926-1937	Miners Phthisis Prevention Committee (second)
1928	Increased attention to the ventilation of stopes and measures adopted to direct air along the working faces.
1928	The first series of lectures by J.P. Rees, Chamber to ventilation officials. Lectures presented by Rees until 1947. At the completion of each series an examination was held and Chamber certificates were issued to successful candidates.
1929	Ignition treatment of konimeter slides started. Technique of counting particles standardized by Chamber.
1930	Chamber Standing Committee on Dust Sampling role expanded to become Committee on Mine Air.
1930	Landmark International Labour Office (ILO) Conference on Silicosis held in Johannesburg in 1930. Sponsored by Chamber who also provided staff to support ILO Conference secretariat. This International ILO Conference has continued: 10th International Conference on Occupational Respiratory Disease (10 th ICORD) held in Beijing, China in 2005.
1932	Investigation with Greenburg-Smith Impinger for dust measurements. Investigations with Thermal Precipitator started in 1934.
1932	More powerful and efficient fans installed. Regular survey of conditions in stopes started in some mines.
1932	Experiments on the electrical precipitation of dust. Electrical precipitation plant installed underground in 1935.
1935	Increased attention to the sinking of shafts; air taken to shaft bottom in canvas tubing.
1936	Combined blowing in and exhausting systems in development ends recommended by the Chamber.
1936	Booklet 'DUST' published by Chamber. 2 nd and Extended Edition.
1937	Publication of book "The Prevention of Silicosis on the Mines of the Witwatersrand being Report on the Investigations of the Miners' Phthisis Prevention Committee (Reconstituted 1926)" by Government Printer, Pretoria. Appendix No. 2. Chronological Table. Listing of events and changes, which have had, or may have had, a bearing on the incidence of silicosis on the Witwatersrand mines. Grouped under: (1) Changes relative to blasting and exposure to fumes and dust caused by blasting (2) Progress in the application of water (3) Progress in ventilation (4) Design of rock drills and progress in their application (5) Dust traps and filters (6) Measurement of dust (7) Other aspects including general cleanliness and hygiene, above and below ground; medical aspects; labour etc.
1937	Publication of book "Some Studies of Dust in Relation to Silicosis with Special Reference to the Gold Mines of the Witwatersrand" by H.S. Patterson, Physico-chemical Investigation Department, Chamber. Reports on the experimental studies made by the physico-chemical investigation department of the Transvaal Chamber of Mines on the dust problems of the gold mines of the Witwatersrand.
1938	J. Lawrie of the Chamber's Dust and Ventilation Laboratory visited mines to advise mine staff on the treatment and counting of konimeter slides. This may have been the first instance of "on the job training" in mine ventilation given by a Chamber official.
1939	Chamber Committee on Mine Air becomes the Ventilation Problems Sub-Committee.
1940	Publication of "Silicosis: Proceedings of the International Conference held in Geneva from 29 August to 9 September 1938" by ILO, Geneva.
1944	Mine Ventilation Society of South Africa (MVS) established. In 1948 the first issue of the Mine Ventilation Society Monthly Bulletin was distributed to members. An annual grant to assist with the publication of the Bulletin was made by the Chamber in 1956 and in 1957 the Monthly Bulletin changed its name to the Journal of the Mine Ventilation Society of South Africa. Numerous articles on ventilation and dust control.
1950	Chamber Circular on the Dust Count Technique states "Mine Managements should also be informed that the Department of Mines considers as satisfactory counts under 300 particles per c.c. treated by the ignition – immersion – ignition method". This was used as a general guideline and never set down in writing by the Mines Department.

1951	New Chamber research premises in Melville opened to accommodate the three research laboratories of the Chamber, namely: Applied Physiology, Dust and Ventilation and Timber Research.
1956	Pneumoconiosis Research Unit (PRU) established to investigate mineworkers' lung disease. The PRU (which was to eventually become the NCOH and now NIOH) was financed jointly by the Department of Mines and the Chamber. First Director - Dr. A.J. Orenstein.
1956	Start of the contract work by D.G. Beadle with PRU to determine the relationship between dust exposure and radiological signs of silicosis.
1956	Chamber Collieries Dust and Ventilation Laboratories at Witbank and Vereeniging established.
1957	ILO International collaboration on: The Prevention and Suppression of Dust in Mining, Tunnelling and Quarrying First International Report 1952-1954 (1957) 18 Countries contributed information Sixth International Report 1973 – 1977 (1982) 77 countries contributed South Africa contributed to 1st, 2nd and 3rd Reports 1957, 1961, 1965.
1958	MVS Presidential Address by D.G. Beadle "Some Unanswered Questions Regarding Dust and Pneumoconiosis". Lists 20 Questions on dust and pneumoconiosis of which only one (Q1) could be given a definite answer at the time. "Q1 - Is there still a pneumoconiosis problem in South African Mines?" Also reported that "Although no legal limit of dustiness is set in our Mining Regulations, there is the figure of 200 particles per cubic centimeter (by konimeter count) used as an "unofficial standard" by the Mines Department. I do not know the basis on which this figure was determined, and as far as I know no one has ever claimed that if all dust concentrations were kept below this level at all times, there would be no pneumoconiosis."
1959	Second International Conference on Pneumoconiosis held in Johannesburg. Following the formation of the PRU in 1956 scientists from many countries were invited to Johannesburg to advise the PRU research team on the best evolution of their research projects. Modern principles of dust sampling for hazard assessment are founded on three main recommendations adopted at the Conference which have remained largely unchanged to the present day: (i) measurement of the respirable dust fraction (ii) gravimetric assessment of the collected dust (iii) long period sampling to give average dust levels over a shift.
1961	MVS organised a major exhibition of mine ventilation equipment, instruments and accessories in Johannesburg and Welkom.
1963	The Chamber Technical Advisory Committee requested the Sub-Committee of Group Ventilation Engineers to consider the question of propaganda to reduce the dust exposure of mine personnel. The Sub-Committee set up a Special Dust Control Sub-Committee consisting of D.G. Beadle, B.J.R. Botha and J.A. Drummond to make suitable recommendations. D.G. Beadle drew up a draft pamphlet on dust for miners titled "Dust is Dangerous" and provided a written lecture on dust for presentation to all classes of employees. It was considered a "Code of Practice on the control of dust in mines" should be prepared and specimen chapters were provided by J.A. Drummond on "Routine Servicing of Filters" and by B.J.R. Botha on "Breakdown on Correct Use of Calcium Chloride".
1964	Rand Mines introduce system of giving expert lectures on dust to all European underground workers and to a considerable proportion of African workers. The lectures stressed the dangers of dust, gave a simple explanation of how dust reacts in the lungs, listed the main sources of dust and described what each individual worker could himself do to improve conditions. Scheme later adopted and extended by Chamber.
1964	Paper by F.G. Hill, Technical Manager, Rand Mines, Ltd., "The Importance of Better Dust Control in the Prevention of Pneumoconiosis". Included the pamphlet "What Are You Doing About Dust" and examples of anti-dust posters. Recommended the need in the gold mining industry for more educative and propaganda in combating dust. Published in Papers and Discussions 1964-1965, Association of Mine Managers of South Africa.
1964	Gold mining industry recommendations on the effective action that can be taken by Mine Managements, Departments and Individuals to reduce dust levels on mines. Followed up with a request to the Mining Groups to investigate what action had been taken.
1965	ILO published a Guide to the Prevention and Suppression of Dust in Mining, Tunnelling and Quarrying.
1965	Anti-dust campaign initiated through the Chamber Anti-Dust campaign Sub-Committee The basis of the campaign is the instruction of all underground employees in the recognition of the sources of airborne dust and the best means for its prevention and suppression. The campaign also aimed to promote a sense of "dust consciousness" in all concerned.

1966	Chamber anti-dust propaganda material includes: booklet 'Dust is Dangerous', an animated cartoon film with the same title (1967); a coloured slide series with recorded commentary; posters featuring 'Stoffel Waterman' and illustrating good dust control methods; large notice boards for displaying these posters and for writing up slogans, or recent dust results, etc. (normally installed near the banks of the main shafts); gramophone record with a 'pop' tune regarding dust for playing in change houses or at suitable gatherings; coloured post cards featuring 'Stoffel' for use by senior mining staff to send congratulatory messages to miners achieving good dust control results; regular articles on dust control and allied matters in the mining industry's weekly newspaper and monthly safety magazine 'The Reef'. A film was also made of an anti-dust lecture given in Fanakalo by an instructor team leader. Lecturers from various mine-training centres sent to Randfontein Estates for approximately one week to be trained on presenting lectures on dust control.
1968	Chamber Anti-Dust Campaign Poster Catalogue published containing examples of some 60 anti-dust posters.
1968	The Chief Inspector of Mines, Witbank, issued exposure limits for improvement of dust control on coal mines.
1969	Third International Conference on Pneumoconiosis held in Johannesburg.
1969	MVS Symposium "A Critical Evaluation of the Anti-Dust Campaign and Suggestions for the Future". Held at Kelvin House 12 August 1969. Discussion Leader and Editor of the Proceedings - D. G. Beadle. Not published in the MVS Journal.
1970	The work of the Chamber Sub-Committee concerned with the education and publicity campaign aimed at reducing air-borne dust concentrations in mines was taken over by the Prevention of Accidents Committee.
1970's	Chamber research work on respirable gravimetric dust sampling with cyclones
1971	Textbook published by the MVS on Mine Ventilation Notes for Beginners. Additional text books published include: Ventilation of South African Gold Mines (1974), Environmental Engineering in South African Gold Mines (the so-called Black Book first published in 1982) and the Data Book (1992).
1975	First International Conference on Mine Ventilation held in Johannesburg. Organised by the Mine Ventilation Society of South Africa and sponsored by the Chamber. Mr. J Burrows, Chamber, Chairman of the Organising Committee.
1976	Erasmus Commission of Inquiry into Occupational Health. Concluded that "it has regrettably to be stated categorically that, except in the mining industry, industrial health not only occupies a secondary position in industry in this country, but that industrialists have put very little time, money and organisation into the prevention of occupational diseases".
1978	Department of Mines established Committee on Dust Standards. The Committee Chairman, Dr. R.S.J. du Toit, stated that a dust concentration of 200 p/cm ³ (four spot mean konimeter dust count) for the type of dust produced on the W.W. gold mines had been accepted by the Department of Mines as a target.
1980	Chamber Collieries Dust and Ventilation Laboratories becomes Collieries Environmental Control Services (CECS) under the Colliery Training College (Pty) Ltd. Note: From its Evander laboratory, the CECS still provides services to the coal mines for the testing and analysis, of dust, gas and water samples.
1983	Chamber Handbook of Guidelines for Environmental Protection at Continuous Miners.
1985	Chamber Research Organisation Applications Report No. 7 Continuous Miners: Maintain Your Dust Control Systems.
1986	American Conference of Governmental Industrial Hygienists (ACGIH) adopt TLV-TWA of 0.1 mg/m ³ for Silica, Crystalline - Quartz respirable dust.
1987	Chamber Research Organisation User Guide No. 2 1987 Guidelines for Environmental Protection at Continuous Miners.
1987-1990	Routine respirable gravimetric dust sampling introduced underground.
1987	Chamber Mine Safety and Health Congress, November 1987. Proceedings published 1988.
1987	MVS Symposium "Airborne Pollutants: Their effects, measurement and control" 25-26 March 1987.
1989	The Department of Mineral and Energy Affairs (DMEA) incorporate ACGIH TLVs in the "Supporting Document No 2 List of Threshold Limit Values (TLV) under the Guidelines for the Gravimetric Sampling of Airborne Particulates for Risk Assessment in Terms of the Occupational Diseases in Mines and Works Act No. 78 of 1973. Incorporated a TLV of 0.1 mg/m ³ for Alpha Quartz based on the ACGIH TLV at that time.
1991	Safety In Mines Research Advisory Committee (SIMRAC) established.
1992	MVS organised the "Fifth International Mine Ventilation Congress" 25 th -30 th October 1992 in South Africa.

1995	ILO/WHO Global Programme for the Elimination of Silicosis (GPES). The immediate objective is to promote the development by countries of National Programmes on the Elimination of Silicosis to reduce significantly the incidence rate of silicosis by the year 2010. The development objective of the GPES is to establish wide international co-operation on global elimination of silicosis to eliminate it as an occupational health problem by the year 2030.
1995	Leon Commission report into health and safety in the mining industry. "4.6.5 As a result of his own work, on the basis of dust measurements made between 1956 and 1960, Beadle concluded that there was little evidence of a decline in dust levels between 1938 and 1969. As a result of the work done by Du Toit and the unpublished review by King the Commission is of the opinion that dust levels have remained roughly the same over a period of about 50 years. This constitutes a priori evidence that the absence of a downward trend in the official figures for certification is correctly interpreted as a failure to control dust related disease."
1996	International Agency for Research on Cancer (IARC), France, reclassify inhaled crystalline silica as a Group 1 carcinogen from a Group 2 carcinogen. IARC considers substances in its Group 1 category to be carcinogenic to humans, while Group 2 refers to substances IARC considers probably carcinogenic to humans. IARC classified inhaled crystalline silica into its Group 2 category in 1987. In reaching its 1996 reclassification decision, the working group reviewed additional experimental animal studies and selected human epidemiological studies.
1996	SIMRAC COL 027 Reduction of worker Exposure to Dust in Collieries. Includes Handbook to reduce the exposure of workers to dust. Research steered by Special Interest Group on Dust Suppression (SIGDS).
1996	Mine Health and Safety Act (MHSA) to ensure a healthy and safe environment in mines/quarries.
1997	SIMRAC Report SIMRISK 401 (1997) "Despite the availability of a comprehensive airborne dust database, there is considerable uncertainty on the exposure of mineworkers to dust. The reliability of the sampling equipment used and the strategies used by mines for dust monitoring have been called into serious question with a strong suspicion that dust levels may be substantially under-reported".
1997	Benjamin and Greef Committee of Inquiry into a National OHS Council in South Africa (p165) "It is now generally acknowledged that the ODMW Act's compensation system contributed significantly to the poor control of health hazards in the mining industry as noted by the Leon Commission. First, the extremely low levels of compensation paid to black mineworkers under the ODMW Act prior to 1994, and the correspondingly low compensation assessment paid by mines, meant that the compensation system contained no financial incentive for employers to tackle dust problems in the mines."
1999	The SIMRAC Subcommittee SIMHEALTH established to deal with occupational health matters. Replaced in 2002 by the Mining Occupational Health Research Advisory Committee (MOHRAC) under the Mining Occupational Health Advisory Committee (MOHAC) and in 2004 by the Occupational Health Technical Advisory Committee (OHTAC) under SIMRAC.
1999	SIMRAC COL 518 Mechanical Miner Environmental control. Research steered by Industry Working Group on Mechanical Miner Ventilation and Dust Control.
1999	WHO publish book Hazard Prevention and Control in the Work Environment: Airborne Dust
2000	ACGIH adopt a TLV-TWA of 0.05 mg/m³ for Silica, Crystalline - Quartz respirable dust, A2 Designation 'Suspected Human Carcinogen'.
2001	SIMRAC Handbook of Occupational Health Practice in the South African Mining Industry Prof. Neil White, Pulmonologist, Respiratory Clinic, UCT states in Chapter 5: Occupational Lung Disease "In 1999 the National Centre for Occupational Health published data based on 26 000 underground dust measurements in 48 South African Gold mines from 1995 - 1997. Only 8 (17%) of these mines had all of their estimated time weight average (TWA) measurements for respirable quartz below the DME's standard of 0.1 mg/m³. Of the remainder 21 mines (43%) had a high proportion of dust measurements in the range 0.1 - 0.4 mg/m³, whilst 19 (40%) had most of their measurements above 0.4 mg/m³."
2002	DME occupational exposure limit for crystalline silica as low as reasonably practicable below 0.1 mg/m³.
2002	SIMRAC Project on the Elimination of Silicosis in the SA Mining Industry. Regional and National Workshops 2002-2004 to develop research programme on silicosis control.
2003	Courses on Dust Control and PIMEX (Picture Mix EXposure) organised by African Joint Effort on OHS in Cape Town and Johannesburg. Presented by staff from the National Institute for Working Life (NIWL), Sweden and Finish Institute of Occupational Health (FIOH).
2003	At the Mine Health and Safety Summit on the 24th October 2003 the Minister of Minerals and Energy, Phumzile Mlambo-Ngcuka, stated that further improvements were needed in health and safety in the South African mining sector, with Silicosis a major concern.
2003	National Institute for Occupational Safety and Health (NIOSH), USA, issue Handbook for Dust Control in Mining.

2004	Agreed milestones from the MHS Summit: • By the year 2008, 95% of all exposure measurements results will be below the occupational exposure limit (OEL) for respirable crystalline silica of 0.1 mg/m³. These results are individual readings and not averaged results. • From the year 2013, using present diagnostic techniques, no new cases of silicosis will occur among previously unexposed individuals.
2004	South African National Programme for the Elimination of Silicosis (NPES) launched on the 28 th June 2004 by the Minister of Labour, MMS Mdladlana. National Working Group (NWG) chaired by DoL and Provincial Working Groups (PWGs). DoL Booklet on NPES.
2004	SIMRAC Silicosis Elimination Programme - Phase 2 approved by MHSC. Research Programme Budget: R26 Million over 5 Years. Project launched in 2005 (SIM 03-06-03).
2004	NIWL/FIOH (Sweden/Finland) issue Hazard Prevention and Control in the Work Environment: Airborne Dust (2005). Training material on two CDs.
2005	10 th International Conference on Occupational Respiratory Diseases (10th ICORD), Beijing, China. Following on from the 1 st ILO 1930 Silicosis Conference in Johannesburg, subsequent ILO conferences were held in Geneva (1938), Sydney (1950), Bucharest (1971), Caracas (1978), Bochum (1983), Pittsburgh (1988), Prague (1992) and Kyoto (1997).
2005	Chamber OHS Summit with the theme "Achieving the Unachievable" held 15th June 2005. South Africa's major mining companies sign a commitment to achieve the sectors agreed OHS targets including silicosis elimination.
2005	DoL led National Workshop on Silicosis with PWGs held at Montecasino, Johannesburg on 20 th July.
2005	6 th International Occupational Hygiene Association (IOHA) Scientific Conference held in the Pilanesberg National Park, South Africa, 19-23 September 2005. Includes scientific sessions on silicosis and professional development courses on dust measurement and control.
2005	Silicosis Prevention Information Resource developed for the South African Mining Industry. Includes Best Practice Booklet with supporting CDs and DVDs with silicosis prevention information and videos. CD contains silicosis prevention information from around the world. After tripartite review to be issued in 2006 through Track C of SIM 03-06-03.