



Department of Social Security

Social Security Administration Act 1992

Asbestos Related Diseases

Report by the Industrial Injuries Advisory Council in accordance with Section 171 of the Social Security Administration Act 1992 reviewing the prescription of Pneumoconiosis (asbestosis), Diffuse Mesothelioma, Primary Carcinoma of the lung where there is accompanying evidence of asbestosis or bilateral diffuse pleural thickening or both, and Bilateral Diffuse Pleural Thickening.

Presented to Parliament by the Secretary of State for Social Security

by Command of Her Majesty

November 1996

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July 1996

Report on the Review of the Prescription of Asbestos Related Diseases

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INDUSTRIAL INJURIES ADVISORY COUNCIL

*The Rt Hon Peter Lilley MP,
Secretary of State for Social Security*

Dear Secretary of State,

Review of the Prescription of Asbestos Related Diseases

In June 1995 the Council announced that it would be undertaking a review of the present prescription of asbestos related diseases. The Council has now completed its review, and I enclose our report which recommends that amendments should be made to prescribed diseases D3 (diffuse mesothelioma), D9 (bilateral diffuse pleural thickening) and D8 (primary carcinoma of the lung where there is accompanying evidence of asbestosis or bilateral diffuse pleural thickening or both) but that no change should be made to D1 Pneumoconiosis (asbestosis) at this time.

In 1982 the Council published its report on Asbestos Related Diseases without asbestosis (Cmnd 8750) and a supplement (Cmnd 9184) in 1983. These reports were accepted by the Government and resulted in the prescription of lung cancer in asbestos workers where there was accompanying asbestosis and/or bilateral diffuse pleural thickening (D8), and in the prescription of bilateral diffuse pleural thickening (D9). Since then the Council has continued to monitor all the asbestos related occupational diseases and has received convincing evidence that a review was required.

The Council recommend the following changes to the present terms of prescription:

- D3 (mesothelioma) should be amended to include a wider range of occupations - to reflect current scientific evidence about which occupations have a raised risk of the disease. The 90 day waiting period should be removed for this disease alone;
- D9 (bilateral diffuse pleural thickening) should be updated and altered to reflect a more precise definition of diffuse pleural thickening, and
- D8 (primary carcinoma of the lung where there is accompanying evidence of asbestosis and/or bilateral diffuse pleural thickening) should reflect the changes to D9.

In the unique circumstance of mesothelioma the Council would have preferred benefit to be paid to any employed earner who had developed the disease. We recognise, however, that the legal framework of the Industrial Injuries scheme does not permit this. We believe the changes we are recommending will improve the speed with which benefit can be paid for this particularly unpleasant rapidly fatal cancer, and extend the cover provided by the scheme for people in whom this disease is caused by work. This extension in coverage is only recommended in relation to mesothelioma, and not for any of the other asbestos related diseases.

Yours sincerely,

Professor J M Harrington, CBE
Chairman

Date: 18 July 1996

PART I Introduction

1. In June 1995 the Council announced that it would be undertaking a review of the present prescription of asbestos related diseases. The Council has now completed its review.

2. **Industrial Injuries Disablement Benefit** is payable for four prescribed diseases where jobs have involved exposure to asbestos. The diseases are:

D1 - Pneumoconiosis (asbestosis);

D3 - Diffuse mesothelioma (primary neoplasm of the mesothelium of the pleura or of the pericardium or of the peritoneum);

D8 - Primary carcinoma of the lung where there is accompanying evidence of one or both of the following:- (a) asbestosis; (b) bilateral diffuse pleural thickening, and

D9 - Bilateral diffuse pleural thickening.

3. The occupations prescribed for each of these diseases are those involving:

(a) the working or handling of asbestos or any admixture of asbestos; or

(b) the manufacture or repair of asbestos textiles or other articles containing or composed of asbestos; or

(c) the cleaning of any machinery or plant used in any of the foregoing operations, and of any chambers, fixtures and appliances for the collection of asbestos dust; or

(d) substantial exposure to the dust arising from any of the foregoing operations.

4. The Council decided to review the prescription of the asbestos related diseases at this time for three reasons:

4.1 A reported excess of deaths from mesothelioma among occupations not included in the current prescription, and particularly among jobs mainly undertaken by women;

4.2 A suggested excess of lung cancers associated with asbestos but in the absence of asbestosis, and

4.3 Concern that unilateral pleural thickening (not currently prescribed) was caused by asbestos and could cause significant respiratory disability.

5. The Council sought evidence about the definition of diffuse pleural thickening, the occupations, particularly among women, associated with an increased risk of mesothelioma, and the risk of primary lung carcinoma in those who have been exposed to asbestos but who do not have radiographic evidence of asbestosis or diffuse pleural thickening.

PART II Pneumoconiosis (asbestosis) (*prescribed disease D1*)

6. Pneumoconiosis is a comprehensive term covering a group of dust diseases of the lungs, of which the chief are silicosis, asbestosis and coal-workers pneumoconiosis. Benefit has been paid under the Industrial Injuries scheme for pneumoconiosis (including asbestosis) since the scheme was introduced in 1948.

7. The Council has not found or received evidence to suggest that the current prescription should be changed at this time and does not therefore recommend any change.

PART III Diffuse mesothelioma (*prescribed disease D3*)

8. Malignant mesothelioma is an invariably fatal disease, almost all cases dying within 2 years from the time of diagnosis. The great majority of new cases in the UK at present are attributable to asbestos exposure and most are caused by occupation. The degree of exposure necessary to cause mesothelioma is considerably less than that associated with asbestosis and lung cancer, and in most cases the relevant exposure to asbestos occurs some 20 or more years before the disease is diagnosed. After this length of time many claimants who have been exposed to asbestos have forgotten how and when they were exposed and it can be impossible to verify the exposure with employers (many of whom are no longer in business). Some claimants and employers may be unaware that relevant exposure to asbestos occurred.

9. Because of the poor prognosis of mesothelioma the Benefits Agency has for some time operated a 'fast track' procedure to process claims to try to ensure that benefit is received before death. This procedure involves claims being sent for medical consideration as soon as they are received, instead of awaiting confirmation that the employment conditions have been satisfied, as is usual. In these circumstances benefit can normally be paid within a few weeks of the claim being received.

10. There has been a general increase in the incidence of mesothelioma reported on death certificates over the last 20 years. This is thought to reflect an increase in occupational exposure to asbestos in the 1960's and early 1970's but a substantial minority of cases do not obtain industrial injuries awards. DSS data indicate a much smaller proportion of cases of mesothelioma are compensated in women than in men, suggesting that occupational cause and eligibility for benefit are less frequently recognised in women.

11. The Council is also concerned to ensure that benefit should be paid as speedily as possible to those who have a mesothelioma as a result of exposure to asbestos as an employed earner. Given the evidence referred to above, our preference would be for the scheme to pay benefit to anyone who has a mesothelioma and has been an employed earner. This would speed up payment and streamline processing by avoiding the need for detailed investigation of each individual's employment history, based on the evidence that most cases of mesothelioma are occupationally caused. However, we have been advised that such an approach would be inconsistent with the scheme's legal framework. This requires that the Secretary of State must be satisfied in relation to a prescribed class of employed earners that the relevant prescribed disease:

“(a) ought to be treated, having regard to its causes and incidence and any other relevant consideration, as a risk of their occupations and not as a risk common to all persons; and

(b) is such that, in the absence of special circumstances the attribution of particular cases to the nature of employment can be established or presumed with reasonable certainty.”

(Section 108, Social Security Contributions and Benefits Act 1992).

In relation to mesothelioma, it is therefore necessary to be satisfied both that the prescribed occupations carry an appreciably greater risk of contracting mesothelioma than is present among the general population, and that this risk can be attributed to a particular individual's employment as an employed earner.

12. Taking into account the Benefits Agency's fast track procedure for mesothelioma cases, the Council considers that it should, nevertheless, be possible to achieve the speed and breadth of coverage needed within the present legal framework. To this end the Council recommends that:

(1) in the unique circumstance of mesothelioma claimants should no longer be required to serve the usual 90 day waiting period before benefit is payable; and

(2) the prescribed occupations for mesothelioma (but not for other asbestos related diseases) should be extended to include any occupation involving significant¹ exposure to asbestos.

13. Knowledge is increasing about past uses of asbestos and therefore about occupations which may have carried a risk of significant exposure to asbestos and which now carry an increased risk of mesothelioma. We have set out at appendix 2 an account of the known uses of asbestos and a list of occupations in which significant exposure to asbestos may have occurred and in which cases of mesothelioma could reasonably be attributed to work. We understand that this list will be helpful to guide Benefits Agency staff in deciding claims, and that our recommendations will enable even simpler and speedier processing of these claims than is currently possible. This list cannot be comprehensive and it is recognised that there will be other circumstances in which occupational exposure to asbestos may have occurred. This may be particularly true for women. In these circumstances we recommend that the likely extent of exposure be determined from the evidence available to the Adjudication Officer. The Council will keep the list under review.

¹ By "significant" in this context we mean a level above that commonly found in the air in buildings and the general outdoor environment.

PART IV Bilateral diffuse pleural thickening (*prescribed disease D9*)

14. The Council were particularly interested to receive evidence about the definition of diffuse pleural thickening, in order that the terms of prescription should be as clear as possible for claimants, their advisors and for doctors working within the scheme.

15. A recent study by the Benefits Agency into appellant success rates at Industrial Injuries Medical Appeal Tribunals found that Tribunals agreed with the Adjudicating Medical Authorities' (AMAs) decisions on diagnosis of bilateral diffuse pleural thickening in only 39% of cases. This compares with a 75% agreement rate for all of the prescribed disease cases examined. The study suggests that doctors are experiencing difficulty in diagnosing the disease and that the diagnostic criteria for the prescribed disease need to be more specifically defined.

16. Benign diffuse thickening of the pleura is currently prescribed only when the condition is bilateral, but we have received and reviewed evidence which shows that unilateral pleural thickening can be caused by asbestos exposure and can cause sufficient impairment of ventilatory function to be disabling.

17. We therefore recommend that pleural thickening should be prescribed in relation to its total extent on a chest radiograph, whether present over one or both lungs. To qualify for prescription pleural thickening:

- (1) may be unilateral or bilateral;
- (2) must cover at least 25% of the total (left and right) chest wall (i.e. would need to cover 50% of one chest wall if unilateral) as assessed by chest radiograph, and
- (3) must extend to a thickness of at least 5mm in at least one site as assessed by chest radiograph.

18. The evidence we have received about disablement attributable to pleural thickening relates to findings on chest radiographs. Computed tomography (CT) is considerably more sensitive in the detection of pleural changes but the relationship between the magnitude of the changes detected by CT and respiratory disability has not been established. Furthermore the radiation dose for a high resolution CT scan is some twenty times that for a chest radiograph. We have therefore limited our recommendations to changes seen on the chest radiograph and not extended them to findings on CT scan.

PART V Primary carcinoma of the lung where there is accompanying evidence of asbestosis or bilateral diffuse pleural thickening or both (prescribed disease D8)

19. Primary carcinoma of the lung in relation to asbestos is prescribed for benefit purposes only where there is accompanying evidence of asbestosis or bilateral diffuse pleural thickening or both.

20. Over the years the Council has monitored the case for prescribing primary carcinoma of the lung where there has been substantial exposure to asbestos but no evidence of either asbestosis or bilateral diffuse pleural thickening.

21. Few studies have addressed the question of whether the risk of lung cancer is increased in those exposed to asbestos without radiographic evidence of asbestosis, and their results are conflicting. Furthermore in those studies in which an increased risk of lung cancer has been observed in the absence of radiographic evidence of asbestosis, the increase in risk in the relevant occupations has been less than two fold. Thus it could not be inferred in the individual case that on the balance of probabilities the disease was caused by occupation.

22. The Council therefore recommends that the only change to the present terms of prescription of prescribed disease D8 should be to reflect the change we recommend to the terms of prescription of prescribed disease D9 (bilateral diffuse pleural thickening).

PART VI Conclusion & Recommendations

23. The Council recommends:

- no change to the prescription for pneumoconiosis (asbestosis) (prescribed disease D1);
- the 90 day waiting period before benefit is payable should be removed in the unique circumstance of mesothelioma (prescribed disease D3);
- the list of occupations prescribed for mesothelioma (prescribed disease D3) alone should be extended to include any occupation involving significant exposure to asbestos, and a list of occupations is included for use as a guide (appendix 2);
- the prescription of diffuse pleural thickening (prescribed disease D9) should be amended to include both unilateral and bilateral thickening. The thickening, as assessed by chest radiograph, must involve at least 25% of the pleura overall and must be at least 5mm in at least one site;
- the D9 prescription should continue to be in terms of changes detected by chest radiograph rather than by CT scan; and
- the prescription of primary carcinoma of the lung where there is accompanying evidence of asbestosis and/or bilateral diffuse pleural thickening (prescribed disease D8) should be amended to reflect the recommended change to the terms of prescription of prescribed disease D9.

24. Compliance Cost Assessment

The recommendations set out in this report, if accepted, would reduce the burden on employers. Although an increase in claims in respect of mesothelioma could be expected this would be modest and the reduced level of detail required on individual employment histories should lessen the administrative load on both Adjudication Officers and employers.

25. Prevention

Recent evidence of a risk of mesothelioma in occupations not traditionally associated with asbestos exposure (e.g. in the construction industry) draws attention to the need for continuing alertness to possible sources of exposure to asbestos.

Oral evidence given by:

1. Professor Corbett McDonald (National Heart & Lung Institute, London)
2. Mr John Hodgson (Health and Safety Executive)
3. Dr Clive McGavin (Freedom Fields Hospital, Plymouth)

Written evidence received from:

1. Clydeside Action on Asbestos
2. Dr D Davies (Nottingham)
3. Trades Union Congress
4. The Society for the Prevention of Asbestosis and Industrial Diseases
5. The Occupational and Environmental Diseases Association

Risk of Mesothelioma from Exposure to Asbestos in the Workplace

1. In the unique circumstance of mesothelioma evidence suggests that there is an increased risk of contracting the disease among a wider range of occupations than is covered by the present terms of prescription. The Council therefore recommends in this report that the terms of prescription for mesothelioma should be extended to include any occupation involving significant¹ exposure to asbestos. This appendix is intended to be used by adjudication staff deciding mesothelioma cases, as a guide to the past uses of asbestos and the types of occupations where significant exposure may have occurred and in which mesothelioma could reasonably be attributed to work.

Uses of asbestos

2. By the early 1900s asbestos was widely used with little in the way of controls. Standards of control were introduced in 1933 and have been progressively tightened since. In 1985, the import, marketing and use of crocidolite and amosite (the main forms of amphibole asbestos) were prohibited in the United Kingdom although exposure may still occur where these substances are present in buildings and plant.

3. All forms of asbestos have good resistance to heat, electricity and chemical corrosion, and have high tensile strength. Asbestos has therefore been used as a fire-proofing and retarding material. It also has excellent thermal and acoustic insulating properties. Because asbestos is fibrous it has been used as a strengthener and filler in composite materials such as plastics and cement. Asbestos products have included:

- Asbestos cement sheets, slates and pipes
- Asbestos insulating boards and tiles
- Asbestos insulation/ lagging
- Sprayed asbestos coatings
- Asbestos textiles (rope, yarn and cloth)
- Millboard, paper and paper products
- Bitumen felts
- Coated metal
- Flooring materials
- Textured coatings and paints
- Reinforced plastics
- Mastics, sealants, putties and adhesives
- Process filters

4. Asbestos insulating boards are found in all types of industrial, commercial and residential buildings and were especially used in 1960s and 1970s system-built housing. Asbestos ceiling tiles were widely used in the 1950s and 1960s, particularly in schools, hospitals and shops. Asbestos lagging was widely used in public buildings, factories and hospitals until other insulation materials became more widespread from the mid-1960s. Sprayed asbestos coatings have been widely used for thermal, condensation and acoustic control in buildings and for fire protection of structural steel. Their use ceased in 1974, and asbestos spraying was prohibited in 1985. Asbestos filters have been used in industrial processes, and also in gas masks and cigarette tips. Asbestos insulation has been used in motor vehicle brake and clutch linings and salon hair dryers. Asbestos textiles have been used to manufacture protective clothing.

5. A more detailed account of the past uses of asbestos in the United Kingdom is set out in "Asbestos Manufacturing Works"², an Industry Profile published by the Department of the Environment in 1995, on which the above is based.

¹ By "significant" in this context we mean a level above that commonly found in the air in buildings and the general outdoor environment.

² Asbestos Manufacturing Works. An Industry Profile. London: Department of the Environment, 1995. 18p. ISBN 1851122311.

Occupations carrying a risk of significant exposure to asbestos

6. At present occupations prescribed for each of the asbestos related diseases (including mesothelioma) are those involving:

- (a) the working or handling of asbestos or any admixture of asbestos; or
- (b) the manufacture or repair of asbestos textiles or other articles containing or composed of asbestos; or
- (c) the cleaning of any machinery or plant used in any of the foregoing operations, and of any chambers, fixtures and appliances for the collection of asbestos dust; or
- (d) substantial exposure to the dust arising from any of the foregoing operations.

7. The widespread uses of asbestos mean that significant asbestos exposure could occur in occupations not readily understood to be covered by this list. For example, significant exposure to asbestos could have occurred in the manufacture, assembly, repair, maintenance, or use of machinery, equipment or plant requiring insulation (such as that producing excessive heat or noise). Its widespread use in buildings, aeroplanes, trains and ships means that significant asbestos exposure might occur in the construction, repair, maintenance or refitting and demolition of buildings, aeroplanes, trains and ships, including the installation, repair and maintenance of services, such as electrical, heating, telecommunications, plumbing and drainage services, as well as in removal of the asbestos itself. All of the above activities could also involve a risk of significant exposure among people working alongside or in the vicinity.

8. Set out below is a list of occupations in which significant exposure to asbestos may have occurred. The numbers in brackets are occupational codes as specified in the Office of Population Censuses and Surveys 1980 Classification of Occupations which we recommend should be made available to staff deciding claims. Cases of mesothelioma in people who have worked in one of the occupations as an employed earner could reasonably be attributed to this work without further enquiry.

Environmental health officers, building inspectors and other statutory inspectors (006)

Professional and technical occupations in science, engineering, technology and construction (024-033)

Production, works and maintenance managers, and works foremen (034)

Managers in building and contracting and clerks of works (035)

Fishermen, deck and engine room hands, bargemen, lightermen and boatmen (081-082, 147-148)

Textile workers and labourers (086-087, 98.4, 136.2, 138.2, 159.1, 160.1)

Chemical, gas and petroleum process plant foremen, operators and labourers (088-089, 159.2, 160.2 - 160.3)

Tailors, tailoresses, dress makers, clothing cutters, sewers, coach trimmers, upholsterers and mattress makers (101.1-101.4, 101.6, 102-103, 107.8)

Woodworkers and woodworking machinists (104-106, 107.1, 107.6, 136.6, 138.6)

Manual occupations in the processing, making and repairing of metals and metal and electrical goods (108-131, 160.5-160.6)

Painters and decorators (132-3)

Assemblers of metal and electrical goods (134.1-134.3, 135)

Inspectors, viewers and examiners of metal and electrical goods and textiles (136.1-136.2,137.1, 138.2)

Laboratory Assistants (138.1)

Manual occupations in building and civil engineering (139-143)

Mechanical plant, fork lift and mechanical truck drivers, crane drivers and operators (154.1 - 154.3, 155)

Storekeepers, stevedores, warehouse, market and other goods porters (156, 157)

Boiler operators (159.9, 161.1)

N.B.

It is important to understand that not all workers - nor even necessarily a majority of workers - in the individual occupational groups listed will have been exposed to significant levels of asbestos. However, cases of mesothelioma in individuals who have worked in these occupations can be assumed, in the absence of convincing evidence to the contrary, to be due to occupational asbestos exposure.

Significant exposure to asbestos may also have occurred in other occupations not included in the above list, particularly where the job did not involve working directly with asbestos but was carried out in an industry where asbestos was used (e.g. a clerk in an asbestos textiles factory) or in support services (e.g. laundering the protective clothing of workers handling asbestos). In these circumstances we recommend that the likely extent of exposure be determined from the evidence available to the Adjudication Officer.

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