

Industrial Injuries Advisory Council – Information Note Bladder cancer and pre-bake aluminium smelters

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This Information Note records recent Council deliberations on whether there are grounds to recommend adding workers involved in aluminium processing using pre-baked anodes to the list of prescribed occupational exposures for the Prescribed Disease bladder cancer. In the event, the Council has decided that the evidence remains insufficient to support such a recommendation. The background and the main considerations are summarised here.

In February 2011 an Early Day Motion (EDM 1382, Katy Clark MP, 1 February 2011) was laid before Parliament asking that consideration be given to looking again at the terms of prescription for Prescribed Disease C23 (primary neoplasm of the urinary tract) “with a view to revising it to ensure that all those for whom there is strong evidence to suggest they may have contracted the condition as a result of their employment are eligible for Industrial Injuries Disablement Benefit”. It is understood that one concern underlying the motion was that, among other things, PD C23 presently covers aluminium processing workers using the Soderberg process, but not workers processing aluminium using pre-baked anodes*.

The terms of prescription for PD C23 were last reviewed in 2002 in the Command paper ‘Conditions due to Chemical Agents’, during which a call for evidence was made and searches of published research literature were undertaken. At the time no evidence relating to bladder cancer and aluminium processing using pre-baked anodes featured in the report. However, the Industrial Injuries Advisory Council (IIAC) has now considered this matter.

The issue was first discussed at a meeting of IIAC’s permanent sub-committee, the Research Working Group, in March 2011. Since then, IIAC has conducted and considered a literature search, reviewed key evidence and consulted with experts in the field. In the published research (1-7) there is insufficient evidence of a greater than doubled risk (the standard of proof IIAC usually seek in recommending prescription) of bladder cancer in workers exposed to aluminium processing using pre-baked anode technology.

This position was confirmed by the experts IIAC consulted: Professor Kurt Straif from the International Agency for Research on Cancer (IARC) and Professor Malcolm Sim from Monash University in Australia.

* Aluminium metal is produced by reduction of alumina in electrolytic cells via two types of processes: those with pre-baked anodes and those with baked-in-place anodes (Soderberg process).

The lower risk in aluminium smelters using pre-baked anodes, as compared with the Soderberg process, is believed to arise because the former technique exposes workers to lower levels of polycyclic hydrocarbons, the likely risk-conferring carcinogenic substances.

IIAC has concluded that aluminium smelting using pre-baked anode technology should not be added to the list of prescribed occupations for the prescribed disease PD C23 (bladder cancer). However, the Council will regularly monitor evidence about bladder cancer and aluminium processing using pre-baked anodes and will revisit the issue should relevant new research emerge.

References

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