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GOVERNMENT NOTICES

DEPARTMENT OF MANPOWER

No. R. 586 22 March 1991

MACHINERY AND OCCUPATIONAL SAFETY ACT, 1983 (ACT NO. 6 OF 1983)

The Minister of Manpower has, in terms of section 35 of the Machinery and Occupational Safety Act, 1983 (Act No. 6 of 1983), made the regulations contained in the Schedule.

SCHEDULE

LEAD REGULATIONS

Definitions

1. In these Regulations "the Act" means the Machinery and Occupational Safety Act, 1983 (Act No. 6 of 1983), and any expression to which a meaning has been assigned in the Act shall have the meaning so assigned and, unless the context indicates otherwise—

"action level" means a time-weighted average concentration of a substance in the workplace air that is distinctly below the exposure limit for that substance, and at or above which level certain prescribed preventive measures must be taken;

"action level for lead" means an action level of 0,075 mg airborne lead, other than for tetra-ethyl lead, per cubic metre of air, and in the case of tetra-ethyl lead it means an action level of 0,05 mg airborne lead per cubic metre of air, measured in accordance with a safety standard incorporated into these regulations under section 36 of the Act;

"approved inspection authority" means an inspection authority approved by the chief inspector for—

- (a) the monitoring of lead concentrations in air; or
- (b) the analysis of blood lead or urinary lead concentrations;

GOEWERMENTSKENNISGEWINGS

DEPARTEMENT VAN MANNEKRAG

No. R. 586 22 Maart 1991

WET OP MASJINERIE EN BEROEPSVEILIGHEID, 1983 (WET NO. 6 VAN 1983)

Die Minister van Mannekrag het kragtens artikel 35 van die Wet op Masjinerie en Beroepsveiligheid, 1983 (Wet No. 6 van 1983), die regulasies vervat in die Bylae uitgevaardig.

BYLAE

LOODREGULASIES

Woordomskrywing

1. In hierdie Regulasies beteken "die Wet" die Wet op Masjinerie en Beroepsveiligheid, 1983 (Wet No. 6 van 1983), en het 'n woord of uitdrukking waaraan in die Wet 'n betekenis geheg word, die betekenis aldus daaraan geheg en, tensy uit die samehang anders blyk, beteken—

"aangewese beroepsgesondheidsbeampte" 'n persoon wat 'n geregistreerde mediese praktisyn is wat 'n kwalifikasie in beroepsgesondheid het of 'n geregistreerde verpleegkundige wat beskik oor 'n goedgekeurde bykomstige kwalifikasie in beroepsgesondheid wat deur werkgewer aangewys is vir die biologiese monitering en die mediese toesig oor werknemers wat aan lood blootgestel is;

"afdelingsinspekteur" die afdelingsinspekteur soos omskryf in regulasie 1 van die Algemene Administratiewe Regulasies;

"Algemene Administratiewe Regulasies" die Algemene Administratiewe Regulasies kragtens artikel 35 van die Wet uitgevaardig, en afgekondig by Goewernentskennisgewing No. R. 2206 van 5 Oktober 1984;

"building work" means building work as defined in regulation 1 of the General Administrative Regulations;

"designated occupational health officer" means a person who is a registered medical practitioner who has a qualification in occupational health, or a registered nurse with an approved additional qualification in occupational health recognized by the SA Nursing Council and who has been designated in writing by the employer for the biological monitoring and medical surveillance of employees exposed to lead;

"divisional inspector" means the divisional inspector as defined in regulation 1 of the General Administrative Regulations;

"E8hEV" or "equivalent eight hour exposure value," means the time-weighted average exposure of an employee in any 24 hour period, to a substance or level of a physical agent for a period of eight hours, and if the period of exposure is more or less than eight hours, the exposure as calculated by multiplying the measured concentration by a factor equal to the period of exposure in hours divided by eight hours;

"exposure limit" means the prescribed maximum airborne time-weighted average concentration of a substance or level of a physical agent to which a person may be exposed without the likelihood of injurious effect, and which is measured in accordance with a safety standard;

"exposure limit for lead, other than that for tetraethyl lead", means an exposure limit of 0,15 mg lead per cubic metre of air, measured in accordance with a safety standard;

"exposure limit for lead, in the case of tetra-ethyl lead" means an exposure limit of 0,10 mg lead per cubic metre of air, measured in accordance with a safety standard;

"General Administrative Regulations" means the General Administrative Regulations published under Government Notice No. R. 2206 of 5 October 1984 in terms of section 35 of the Act;

"intake" includes inhalation, ingestion and otherwise absorbed;

"lead" means lead, lead alloys and lead compounds which can be inhaled, ingested or otherwise absorbed by persons;

"lead area" means an area where the concentration of airborne lead is such that the exposure of employees working in that area is equal to or exceeds the action level for lead but is less than or equal to the exposure limit for lead;

"lead paint" means any paint, paste, spray, stopping, filling, or other material used in painting, which when treated in accordance with the safety standards, yields to an aqueous solution of hydrochloric acid, a quantity of soluble lead compound exceeding, when calculated as lead monoxide, five percent of the dry weight of the portion taken for analysis;

"aksievlak" 'n tyd-beswaarde gemiddelde konsentrasie van 'n substans in die lug van die werkplek wat duidelik onder die blootstellingsdremel vir daardie substans is en waarby of waarbo sekere voorgeskrewe voorkomingsmaatreëls nagekom moet word;

"aksievlak vir lood" 'n aksievlak van 0,075 mg luggedraagde lood, anders as vir tetra-etyl lood, per kubieke meter lug, en in die geval van tetra-etyl lood, 'n aksievlak van 0,05 mg luggedraagde lood per kubieke meter lug, gemeet ooreenkomsdig 'n veiligheidstandaard wat kragtens artikel 36 van die Wet by hierdie regulasies ingelyf is;

"asemhalingbeskermingstoerusting" 'n apparaat wat minstens oor die mond en neus gedra word om die inaseming van onveilige lug te verhoed en wat van 'n tipe is of voldoen aan 'n standaard wat deur die hoofinspekteur goedgekeur is;

"blootstellingsdremel" die voorgeskrewe maksimum luggedraagde veiligheidstandaard wat kragtens artikel 36 van die Wet by hierdie regulasies ingelyf is;

"blootstellingsdremel vir lood, anders as vir tetra-etyl-lood", 'n blootstellingsdremel van 0,15 mg lood per kubieke meter lug, gemeet ooreenkomsdig 'n veiligheidstandaard wat kragtens artikel 36 van die Wet by hierdie regulasies ingelyf is;

"blootstellingsdremel vir lood, in die geval van tetra-etyl-lood", 'n blootstellingsdremel van 0,10 mg lood per kubieke meter lug, gemeet ooreenkomsdig 'n veiligheidstandaard wat kragtens artikel 36 van die Wet by hierdie regulasies ingelyf is;

"bouwerk" bouwerk soos omskryf in regulasie 1 van die Algemene Administratiewe Regulasies;

"E8hBW" of "ekwivalente agt uur blootstellingswaarde", die tyd-beswaarde gemiddelde blootstelling van 'n werknemer in enige 24 uur tydperk, aan 'n substans of vlak van 'n fisiese agens vir 'n tydperk van agt uur, en, indien die blootstellingstydperk meer of minder as agt uur is, die blootstelling soos bereken deur die gemete konsentrasie te vermenigvuldig met 'n faktor gelyk aan die blootstellingstydperk in ure gedeel deur agt uur;

"goedgekeurde inspeksie-owerheid" 'n inspeksie-owerheid wat deur die hoofinspekteur goedgekeur is vir—

(a) die monitering van loodkonsentrasies in die lug; of

(b) die analise van bloedlood- of urienloodkonsentrasies;

"inneem" ook inasem, ingestie of andersins absorbeer;

"lood" lood, loodalooie, en loodverbindings wat inreasem, ingesteer of andersins deur persone geabsorbeer kan word;

"loodgebied" 'n gebied waar die konsentrasie luggedraagde lood sodanig is, dat die blootstelling van werknemers wat in daardie gebied werk, gelyk aan of meer as die aksievlak vir lood is maar minder of gelyk aan die blootstellingsdremel vir lood is;

"medical surveillance" means regular examination by a designated occupational health officer which includes clinical examinations and medical tests;

"monitoring" means the planning, carrying out and recording of a measurement programme;

"respiratory protective equipment" means a device which is worn over at least the mouth and nose to prevent the inhalation of air which is not safe, and which is of a type, or conforming to a standard, approved by the chief inspector;

"respirator zone" means an area where the concentration of airborne lead exceeds the exposure limit for airborne lead;

"SABS 0400" means the South African Bureau of Standards Code of Practice for the Application of the National Building Regulations;

"safety standard" means the safety standards which have been incorporated into these regulations in terms of section 36 of the Act;

"time-weighted average" means the average of representative measurements taken over a period of time.

Scope of application

2. (1) Subject to the provisions of subregulation (2) and (3), these regulations shall apply to every employer at a workplace where lead is produced, processed, used, handled or stored in a form in which it can be inhaled, ingested or absorbed by an employee.

(2) The provisions of these regulations shall not apply to an employer at a workplace where the exposure to lead—

(i) is lower than the action level except where there is a substantial risk that lead can be absorbed or ingested by an employee; and

(ii) is such that no substantial adverse change is likely to occur in the work practice that may lead to an increase in the exposure to lead.

(3) The provisions of regulations 6 (4) and 7 shall not apply to an employer in building work or in the application or removing of lead paint.

Exposure to airborne lead

3. Save for the provisions of regulation 12 (1) no employer shall require or permit any employee to work in an environment in which he would be exposed to a E8hEV of lead, in excess of the prescribed exposure limits for lead.

Education and training

4. Every employer contemplated in regulation 2 shall ensure that every employee exposed to lead is adequately and comprehensively informed and trained at the commencement of their employment and perio-

"loodverf" enige verf, smeergoed, skuum, stopsel, stopverf, of ander materiaal wat by verfwerk gebruik word, wat, wanneer dit ooreenkomsdig 'n veiligheidstandaard wat by hierdie regulasies ingelyf is, behandel word met 'n waterige oplossing van soutsuur 'n hoeveelheid oplosbare loodverbindings lewer wat wanneer dit as loodmonoksied bereken is, vyf persent van die drooggewig van die gedeelte geneem vir analise, oorskry;

"mediese toesig" gereelde ondersoek deur 'n aangewese beroepsgesondheidsbeampte wat kliniese ondersoek en mediese toetse insluit;

"monitering" die beplanning, uitvoering en optekening van 'n meetprogram;

"respiratorsone" 'n gebied waar die konsentrasie luggedraagde lood hoër is as die blootstellingsdrempel vir lood;

"SABS 0400" die Suid-Afrikaanse Buro vir Standardise se Gebruikskode vir die Toepassing van die Nasionale Bouregulasies;

"tyd-beswaarde gemiddelde" die gemiddelde van verteenwoordigende metings geneem oor 'n tydperk;

"veiligheidstandaarde" die veiligheidstandaarde wat kragtens artikel 36 van die Wet by hierdie regulasies ingelyf is.

Toepassingsbestek

2. (1) Behoudens die bepalings van subregulasies (2) en (3), is hierdie regulasies van toepassing op alle werkgewers by 'n werkplek waar lood vervaardig, prosesseer, gebruik, hanteer of opgeberg word in 'n vorm waarin dit deur 'n werknemer ingeasem, ingesteer of geabsorbeer kan word.

(2) Die bepalings van hierdie regulasies is nie van toepassing nie op 'n werkewer by 'n werkplek waar die blootstelling aan lood—

(i) laer is as die aksievlek, behalwe waar daar 'n wesentlike risiko bestaan dat 'n werknemer lood kan absorbeer of ingesteer; en

(ii) sodanig is dat geen wesentlike nadelige verandering moontlik sal plaasvind in die werkpraktyk wat kan lei tot 'n vermeerdering in die blootstelling aan lood nie.

(3) Die bepalings van regulasies 6 (4) en 7 is nie by bouwerk of by die aanwending en verwydering van loodverf, van toepassing nie.

Blootstelling aan luggedraagde lood

3. Behoudens die bepalings van regulasie 12 (1), mag geen werkewer vereis of toelaat dat enige werknemer in 'n omgewing werk waarin hy blootgestel sal wees aan 'n E8hBW van lood wat die blootstellingsdrempels vir lood oorskry nie.

Onderrig en opleiding

4. Elke werkewer bedoel in regulasie 2 moet toesien dat elke werknemer wat aan lood blootgestel kan word, op 'n toepaslike en omvattende wyse, ingelig en opgelei word by die aanvang van sy indiensneming en

dically thereafter at intervals as may be recommended by the safety committees, and where no safety committees have been established, by the safety representative, with regard to—

- (a) the contents of these regulations;
- (b) the potential sources of airborne lead at the workplace;
- (c) the potential risks to health of exposure to lead;
- (d) the recognition of any symptoms of lead absorption;
- (e) the precautions to be taken by an employee to protect himself against the health risks associated with the exposure to lead, including the wearing and use of protective clothing and respiratory protective equipment;
- (f) the correct use, maintenance and limitations of use of safety equipment and facilities provided;
- (g) the need for biological monitoring and medical surveillance; and
- (h) the importance of good personal hygiene.

Duties of employees

5. Every employee who is exposed to lead shall abide by any instruction given by or on behalf of the employer regarding—
- (a) the prevention of lead being released into the environment;
 - (b) the wearing and use of personal protective equipment and clothing as prescribed by these or any other regulations;
 - (c) the wearing of personal samplers when necessary to measure personal exposure to airborne lead;
 - (d) reporting during normal working hours for such medical examination or test as may be required in terms of regulation 8;
 - (e) the notification of pregnancy;
 - (f) the disposal of waste material containing lead and the cleaning of any site at which lead or material containing lead has been used, handled or processed;
 - (g) the adherence to instructions regarding environmental, housekeeping and personal hygiene practices.

Assessment of exposure to lead

6. (1) Every employer contemplated in regulation 2 shall cause an exposure assessment to be made, and thereafter at intervals not exceeding two years, to determine if any employee is exposed to the intake of lead.

(2) The employer shall inform the safety representatives and safety committees in writing of the arrangements made for the assessment, and ensure that the results of such assessment are made available to the safety representatives and safety committees who may comment thereon.

periodiek daarna, met tussenposes soos aanbeveeldeur die veiligheidskomitees of veiligheidsverteenvoerdiger indien daar nie veiligheidskomitees aangesel is nie, in verband met—

- (a) die inhoud van hierdie regulasie;
- (b) die potensiële bronre van luggedraagde lood in die werkplek;
- (c) die potensiële gesondheidsrisiko van blootstelling aan lood;
- (d) die herkenning van enige simptome van lood-absorpsie;
- (e) die voorsorg wat getref moet word deur 'n werknemer, wat die dra en gebruik van beskermende klere en asemhalingsbeskermingstoerusting insluit, om hom teen die gesondheidsrisicos van blootstelling aan lood te beskerm;
- (f) die korrekte gebruik, onderhoud en beperkings op die gebruik van veiligheidstoerusting en fasiliteite wat voorsien is;
- (g) die noodsaaklikheid vir biologiese monitering en mediese waarneming; en
- (h) die belangrikheid van goeie persoonlike higiëne.

Pligte van werknemers

5. Elke werknemer wat aan lood blootgestel is, moet gehoor gee aan enige instruksie deur of namens die werkgever gegee aangaande—
- (a) die voorkoming van vrystelling van lood in die omgewing;
 - (b) die dra en gebruik van persoonlike beskermende toerusting en klerasie soos voorgeskryf deur hierdie of enige ander regulasies;
 - (c) die dra van persoonlike monsternemers wanneer nodig om persoonlike blootstelling aan luggedraagde lood te meet;
 - (d) aanmelding gedurende normale werkure vir sodanige mediese ondersoek of toetsing soos vereis ingevolge regulasie 8;
 - (e) die aanmelding van swangerskap;
 - (f) die wegdoen van afvalmateriaal wat lood bevat en die skoonmaak van enige perseel waar lood of materiaal wat lood bevat, gebruik, gehanteer of geprosesseer is; en
 - (g) die nakoming van voorskrifte ten opsigte van omgewings-, huishoudelike en persoonlike higiëne praktyke.

Beraming van blootstelling aan lood

6. (1) Elke werkgever bedoel in regulasie 2 moet toesien dat 'n blootstellingsberaming gemaak word, en daarna met tussenposes wat nie twee jaar te bowaan nie, om vas te stel of enige werknemer blootgestel is of moontlik blootgestel kan word aan die inname van lood.

(2) Die werkgever moet die veiligheidsverteenvoerders en die veiligheidskomitees skriftelik van die reellings vir sodanige beraming in kennis stel en toesien dat die resultate van sodanige beramings aan die veiligheidsverteenvoerders en die veiligheidskomitees, wie daarop kommentaar mag lewer, bekendmaak word.

(3) In making the assessment, the employer shall keep a record of the assessment and take into account such matters as—

- (a) the methods and procedures used or to be used in the processing, use, handling or storage of lead;
- (b) the extent or potential extent of the exposure of an employee to the intake of lead; and
- (c) the measures and procedures necessary to control such exposure.

(4) If the assessment made in accordance with sub-regulation (3) indicates that an employee is likely to be exposed to the intake of lead, the employer shall ensure that the concentration of airborne lead at such workplace is measured by an approved inspection authority or by a person whose ability to do such measurements is verifiable by an approved inspection authority using static sampling in accordance with the safety standard, and the employer shall ensure that every area where—

- (i) the concentration of airborne lead is equal to or exceeds the action level for lead but is less than or equal to the exposure limit for lead, is demarcated and identified by notice as a lead area; or
- (ii) the concentration of airborne lead is more than the exposure limit for lead, is demarcated and identified by notice as a respirator zone.

(5) Where a change is made in a process involving lead, or in the methods and procedures in the use, handling or processing of lead, the employer shall cause a further assessment to be made forthwith, and the provisions of subregulations (2), (3) and (4) shall apply.

Air monitoring

7. (1) Every employer shall ensure that the measurement of exposure to airborne lead of employees working in a lead area or respirator zone is—

- (a) carried out in accordance with the provisions of these regulations;
- (b) carried out only after the appropriate safety representative or safety committee has been informed of, and commented on the arrangements;
- (c) carried out by an approved inspection authority or by a person whose ability to do such measurements is verifiable by an approved inspection authority;
- (d) carried out in accordance with the safety standard;
- (e) representative of the exposure of employees to airborne lead in the workplace, in accordance with the provisions of subregulation (2); and

(3) By die maak van die beraming, moet die werkewer 'n rekord hou van die beraming en die volgende aspekte in berekening bring—

- (a) die metodes en prosedures gevvolg of wat behoort te word by die prosessering, gebruik, hantering of opberg van lood;
- (b) die mate of potensiële mate van blootstelling van 'n werknemer aan die inname van lood; en
- (c) die maatreëls en prosedures nodig om sodanige blootstelling te beheer.

(4) Indien dit volgens die beraming wat ooreenkomsdig subregulasie (3) gemaak is, blyk dat 'n werknemer moontlik aan lood blootgestel kan word, moet die werkewer toesien dat die konsentrasie luggedraagde lood by sodanige werkplek gemeet word deur 'n goedgekeurde inspeksie-owerheid of deur 'n persoon wie se vermoë om metings te neem, deur 'n goedgekeurde inspeksie-owerheid geverifieer is, deur gebruikmaking van statiese monsterneming volgens die veiligheidstandaarde, en moet die werkewer verseker dat elke area waar—

(i) die konsentrasie luggedraagde lood gelykstaande is aan, of hoër is as die aksievlek vir lood maar minder of gelykstaande is aan die blootstellingsdrempel vir lood, by kennisgewing afgebaken en geïdentifiseer is as 'n loodgebied; of

(ii) die konsentrasie luggedraagde lood hoër is as die blootstellingsdrempel vir lood, by kennisgewing afgebaken en geïdentifiseer is as 'n respirorsone.

(5) Waar 'n verandering aangebring word aan 'n proses waarby lood betrokke is, of in die metodes en prosedures by die gebruik, hantering of prosessering van lood moet die werkewer toesien dat 'n verdere beraming onverwyld gemaak word en die bepalings van subregulasies (2), (3) en (4) sal van toepassing wees.

Lugmonitoring

7. (1) Elke werkewer moet toesien dat die meting van blootstelling aan luggedraagde lood van werknemers wat in 'n loodgebied of 'n respirorsone werk—

- (a) uitgevoer word ingevolge die vereistes van hierdie regulasies;
- (b) alleenlik uitgevoer word nadat die betrokke veiligheidsverteenwoordiger of veiligheidskomitee in kennis gestel is van, en kommentaar gelewer het op die reëlings;
- (c) uitgevoer word deur 'n goedgekeurde inspeksie-owerheid of deur 'n persoon wie se vermoë om sodanige metings uit te voer, geredelik deur 'n goedgekeurde inspeksie-owerheid geverifieer is;
- (d) uitgevoer word ooreenkomsdig die veiligheidstandaard;
- (e) in ooreenstemming met die bepalings van subregulasie (2) uitgevoer word, ten einde verteenvoerdigend te wees van die blootstelling van werknemers aan luggedraagde lood in die werkplek; en

(f) verified in accordance with the provisions of subregulation (3), where such measurements are carried out by a person who is not an approved inspection authority.

(2) In order to comply with the provisions of subregulation (1) (e), the employer shall institute a programme of measurement and keep a record of the exposure of his employees to airborne lead in accordance with the following procedure:

(a) (i) The total number of potentially exposed employees in a respirator zone shall be divided into groups doing identical or similar tasks in the same zone; and

(ii) the total number of potentially exposed employees in lead areas shall be divided into groups doing identical or similar tasks in the same area;

(b) groups performing similar tasks in different buildings or rooms, or during different shifts, shall be dealt with separately;

(c) group exposure shall be determined by personal sampling: Provided that static sampling procedures approved by an approved inspection authority may be resorted to in case of a lead area;

(d) the average exposure of at least 10 per cent of the employees per group shall be regarded as representative for that group;

(e) the employees whose exposures are to be determined shall be selected at random; and

(f) representative measurements shall be carried out at least once per month during each shift: Provided that the frequency of these measurements may be decreased where the average monthly measurement for a particular group over four consecutive months is less than or equal to $0,1 \text{ mg/m}^3$, in which case such measurements may then be carried out in accordance with the static measurement procedure at least once every six months: Provided further that, whenever the average monthly measurement for a group exceeds $0,1 \text{ mg/m}^3$ or a substantial change in the operating procedure is effected at that workplace, monthly measurements for that group shall be resumed, in which case the provisions of this paragraph shall again apply.

(3) In order to comply with the provisions of subregulation (1) (f), the employer shall obtain the services of an approved inspection authority who shall, at intervals not exceeding 12 months—

(a) verify, by examining the measurement and analysis equipment of the employer and questioning the person referred to in subregulation (1) (c), whether the measurement programme of the employer complies with the provisions of this regulation;

(b) carry out the measurements prescribed by sub-regulations (1) and (2) for any one shift; and

(c) enter the results of the investigation and measurements referred to in paragraphs (a) and (b) respectively, in the record required by regulation 9.

(f) geverifieer is in ooreenstemming met die bepalings van subregulasie (3), waar sodanige metings gedoen is deur 'n persoon wat nie 'n goedgekeurde inspeksie-owerheid is nie.

(2) Ten einde te voldoen aan die bepalings van subregulasie (1) (e), moet die werkewer 'n meetprogram van sy werknemers se blootstelling aan luggedraagde lood instel, en rekord daarvan hou ooreenkomsdig die volgende prosedure:

(a) (i) Die totale aantal potensieel blootgestelde werknemers in 'n respiratorsone moet ingedeel word in groepe wat identiese of soortgelyke take in dieselfde sone verrig; en

(ii) die totale aantal potensieel blootgestelde werknemers in 'n loodgebied moet ingedeel word in groepe wat identiese of soortgelyke take in dieselfde gebied verrig;

(b) groepe wat soortgelyke take in verskillende geboue of kamers, of gedurende verskillende skofte verrig, moet afsonderlik behandel word;

(c) groepblootstelling moet vasgestel word deur middel van persoonlike meting: Met dien verstande dat van statiese monsternemingsprosedures, wat deur 'n goedgekeurde inspeksie-owerheid goedgekeur is, gebruik gemaak kan word in die geval van 'n loodgebied;

(d) die gemiddelde blootstelling van minstens 10 persent van die werknemers per groep moet geag word as verteenwoordigend vir daardie groep;

(e) die werknemers wie se blootstelling bepaal moet word, lukraak uitgesoek moet word; en

(f) verteenwoordigende metings moet minstens een keer per maand gedurende elke skof uitgevoer word: Met dien verstande dat die frekwensie van hierdie metings verminder mag word waar die gemiddelde maandelikse meting vir lood vir 'n bepaalde groep in vier agtereenvolgende maande minder of gelykstaande is aan $0,1 \text{ mg/m}^3$, in welke geval sodanige metings dan ingevolge die statiese metingsprosedure ten minste een keer elke ses maande uitgevoer kan word: Met dien verstande, voorts, dat wanneer die gemiddelde maandelikse meting van 'n groep $0,1 \text{ mg/m}^3$ oorskry, of 'n wesenlike verandering in die werkprosedure by daardie werkplek aangebring word, maandelikse metings vir daardie groep hervat moet word, in welke geval die bepalings van hierdie paragraaf weer van toepassing sal wees.

(3) Ten einde te voldoen aan die bepalings van subregulasie (1) (f), moet die werkewer die dienste van 'n goedgekeurde inspeksie-owerheid bekom wat minstens een keer elke 12 maande—

(a) moet verifieer of die meetprogram van die werkewer aan die bepalings van hierdie regulasies voldoen, deur die meet- en ontledingsapparaat van die werkewer te ondersoek en die persoon in subregulasie (1) (c) bedoel, te ondervra;

(b) die metings soos in subregulasies (1) en (2) voorgeskryf vir een skof moet uitvoer; en

(c) die resultate van die ondersoek en metings in, onderskeidelik, paragrawe (a) en (b) bedoel, in die rekord in regulasie 9 bedoel, moet aanteken.

Biological monitoring and medical surveillance

8. (1) Every employer shall ensure that every employee is under the medical surveillance of a designated occupational health officer if—

(a) the employee is employed in a respirator zone or lead area; or

(b) the designated occupational health officer certifies that the employee should be under medical surveillance.

(2) In order to comply with the provisions of subregulation (1) the employer shall ensure that—

(a) an initial medical examination is carried out immediately before or within 14 days after a person commences employment, which comprises—

(i) an evaluation of the employee's medical and occupational history;

(ii) clinical examinations; and

(iii) measurement of the employee's blood lead and haemoglobin concentrations and other relevant biological tests at the discretion of the designated occupational health officer: Provided that the measurement of blood lead concentrations shall be repeated during the third and the sixth month after commencement of employment;

(b) after the expiry of the first six months of employment biological monitoring is carried out periodically which shall consist of—

(i) measurement of blood lead concentration for employees exposed to lead, other than tetra-alkyl lead, at intervals as prescribed in the table below: Provided that in the case of females who are capable of procreation all such measurements are carried out at three monthly intervals;

<i>Blood lead µg/100 ml</i>	<i>Maximum interval between blood lead measurements</i>
Under 40.....	12 months.
40–59	6 months.
60–79	3 months.
80 and over.....	At the discretion of the designated occupational health officer;

(ii) immediate measurement of urinary lead concentration for employees exposed to tetra-alkyl lead and thereafter at intervals as prescribed in the table

<i>Urinary lead µg/litre</i>	<i>Maximum intervals between urinary lead measurements</i>
Under 120.....	6 weeks.
120–149	1 week.
150 and over.....	At the discretion of the designated occupational health officer;

(c) clinical examinations or other relevant biological tests are carried out at the discretion of the designated occupational health officer;

(d) (i) where the blood lead concentration of an employee is equal to or greater than 80 µg/100 ml, the employer shall have the test repeated, and if the results of the repeat test corrected for the haematocrit value, is greater than 80 µg/100 ml, the employee be certified as unfit for work in an area which exposes him to lead: Provided that the designated occupational health officer, if he deems it necessary, may certify an

Biologiese monitoring en mediese toesig

8. (1) Elke werkgever moet toesien dat elke werknemer onder die mediese toesig van 'n aangewese beroepsgesondheidsbeampte geplaas word, indien—

(a) die werknemer in 'n respiratorsone of loodgebied werk; of

(b) die aangewese beroepsgesondheidsbeampte sertifiseer dat die werknemer onder mediese toesig moet wees.

(2) Ten einde te voldoen aan die bepalings van subregulasie (1), moet die werkgever toesien dat—

(a) 'n voorlopige mediese ondersoek uitgevoer word, onmiddellik voordat of binne 14 dae nadat 'n persoon diens aanvaar het, wat bestaan uit—

(i) evaluering van die werknemer se mediese en beroepsgeskiedenis;

(ii) kliniese ondersoek; en

(iii) meting van die werknemer se bloedlood- en hemoglobienkonsentrasies en ander verwante biologiese toetse volgens die diskresie van die aangewese beroepsgesondheidsbeampte: Met dien verstande dat die meting van die bloedloodkonsentrasies gedurende die derde en sesde maand na diensaanvaarding herhaal moet word;

(b) na verloop van die eerste ses maande vanaf diensaanvaarding, biologiese monitering periodiek uitgevoer word wat bestaan uit—

(i) die meting van die bloedloodkonsentrasie van 'n werknemer blootgestel aan lood anders as tetra-alkiellood, met tussenposes soos in die tabel hieronder voorgeskryf: Met dien verstande dat sodanige metings vir vroulike werknemers, wat tot voortplanting in staat is, met tussenposes van drie maande uitgevoer word;

<i>Bloedlood µg/100 ml</i>	<i>Maksimum interval tussen bloedloodbepalings</i>
Onder 40.....	12 maande.
40–59	6 maande.
60–79	3 maande.
80 en oor.....	Volgens die diskresie van die aangewese beroepsgesondheidsbeampte;

(ii) onmiddellike meting van urienloodkonsentrasie vir werknemers wat blootgestel is aan tetra-alkiellood en daarna met tussenposes soos in die tabel hieronder voorgeskryf:

<i>Urienlood µg/liter</i>	<i>Maksimum interval tussen urienloodbepalings</i>
Onder 120.....	6 weke.
120–149	1 week.
150 en oor.....	Volgens die diskresie van die aangewese beroepsgesondheidsbeampte.

(c) kliniese ondersoeke of ander relevante biologiese toetse volgens die diskresie van die aangewese beroepsgesondheidsbeampte uitgevoer word;

(d) (i) waar die bloedloodkonsentrasie van 'n werknemer gelyk is aan of hoër is as 80 µg/100 ml, moet die werkgever die toets herhaal, en indien die resultaat van die hertoets, gekorrigeer vir die haematokrit waarde, hoër is as 80 µg/100 ml, moet die werknemer as ongeskik verklaar word vir werk in 'n gebied wat hom aan lood blootstel: Met dien verstande dat die aangewese beroepsgesondheidsbeampte, indien hy

employee who has a blood lead concentration of less than 80 µg/100 ml as unfit for work in an area which exposes him to lead; and

(ii) where the urinary lead concentration of an employee is equal to or greater than 150 µg/l, the employer shall have the test repeated and if the results of the repeat test is greater than 150 µg/l the employee shall be certified as unfit for work in an area which exposes him to lead: Provided that the designated occupational health officer, if he deems it necessary, may certify an employee who has a urinary lead concentration of less than 150 µg/l as unfit for work in an area which exposes him to lead.

(3) The employer shall ensure that no employee certified by the designated occupational health officer as unfit for work in an area which exposes him to lead, returns to such work until—

- (i) the designated occupational health officer certifies in writing that the employee is fit for such work; and
- (ii) the employee's blood lead concentration is less than 70 µg/100 ml; or
- (iii) the employee's urinary lead concentration is less than 130 µg/l.

(4) The employer shall—

(i) ensure that a woman who is capable of procreation and who is employed on work which exposes her to lead, is suspended from such work when her blood lead concentration exceeds 40 µg/100 ml or her urinary lead concentration 75 µg/l, or if she becomes pregnant; and

(ii) ensure that the employee contemplated in sub-regulation (i) not be permitted to return to work which will expose her to lead unless her blood lead concentration is less than 35 µg/100 ml or her urinary lead concentration is less than 65 µg/l.

(5) Where it is found that the blood lead concentration of any employee is equal to or greater than 80 µg/100 ml or where the urinary lead concentration is equal to or greater than 150 µg/l, the employer shall investigate the incident in accordance with regulation 10 of the General Administrative Regulations.

Records

9. (1) Every employer shall—

(a) keep records of the results of assessments, air monitoring, biological monitoring and medical surveillance reports required by regulations 6, 7 and 8 respectively;

(b) make such records available for inspection by inspectors;

(c) allow an employee or a registered medical practitioner, upon written request of the employee, to peruse the records with respect to that particular employee; and

(d) make the records of all assessments and air monitoring available for perusal by the safety representatives or safety committees.

dit nodig ag, 'n werknemer wie se bloedloodkonsentrasie minder as 80 µg/100 ml is, as ongesik kan verklaar vir werk in 'n gebied wat hom aan lood blootstel; en

(ii) waar die urienloodkonsentrasie van 'n werknemer gelyk is aan of hoër is as 150 µg/l, moet die werkewer die toets herhaal, en indien die resultate van die her-toets groter is as 150 µg/l moet die werknemer as ongesik verklaar word vir werk in 'n gebied wat hom aan lood blootstel: Met dien verstande dat die aangewese beroepsgesondheidsbeampete, indien hy dit nodig ag, 'n werknemer wat 'n urienloodkonsentrasie van minder as 150 µg/l het, as ongesik kan verklaar vir werk in 'n gebied wat hom aan lood blootstel.

(3) Die werkewer moet toesien dat geen werknemer wat deur 'n aangewese beroepsgesondheidsbeampete as ongesik verklaar is vir werk in 'n gebied wat hom aan lood blootstel, na sodanige werk terugkeer nie, totdat—

- (i) die aangewese beroepsgesondheidsbeampete hom skriftelik as gesik vir sodanig werk verklaar het; en
- (ii) die werknemer se bloedloodkonsentrasie minder as 70 µg/100 ml is; of
- (iii) die werknemer se urienloodkonsentrasie minder as 130 µg/l is.

(4) Die werkewer moet—

(i) toesien dat 'n vroulike werknemer wat tot voortplanting instaat is en wie se werk haar aan lood blootstel, van sodanige werk verwijder word as haar bloedloodkonsentrasie 40 µg/100 ml oorskry, of haar urienloodkonsentrasie 75 µg/l oorskry, of as sy swanger raak; en

(ii) toesien dat 'n werknemer bedoel in subregulasie (i), nie toegelaat word om na werk wat haar aan lood blootstel, terug te keer nie tensy haar bloedloodkonsentrasie minder as 35 µg/100 ml is, of haar urienloodkonsentrasie minder as 65 µg/l is.

(5) Waar dit gevind word dat die bloedloodkonsentrasie van enige werknemer gelyk is aan of groter is as 80 µg/100 ml of waar die urienloodkonsentrasie gelyk is aan of groter is as 150 µg/l moet die werkewer die geval ondersoek ooreenkomsdig regulasie 10 van die Algemene Administratiewe Regulasies.

Rekords

9. (1) Elke werkewer moet—

(a) rekord hou van die resultate van beramings, lugmonitering, biologiese monitering en mediese toesig vereis deur regulasies 6, 7 en 8 onderskeidelik;

(b) sodanige rekords beskikbaar stel vir ondersoek deur inspekteurs;

(c) 'n werknemer of 'n geregistreerde mediese praktisy toelaat om op skriftelike versoek van daardie werknemer die rekords van die betrokke werknemer na te gaan; en

(d) die rekords van alle beramings en lugmonitering beskikbaar stel ter insae van die veiligheidsverteenvoerders of veiligheidskomitees.

(2) The employer shall keep all records of assessments and air monitoring for a minimum period of three years.

(3) The employer shall keep all biological monitoring and medical surveillances records and results of biological tests for a minimum period of 20 years after termination of employment.

Control of airborne lead

10. Every employer shall control the exposure of persons to lead in the working environment by applying the following measures where appropriate:

(a) Lead and materials containing lead used at the workplace which are liable to release airborne lead shall be limited.

(b) The number of employees who will be exposed to or will likely be exposed to airborne lead arising from the use, handling or processing of lead or materials containing lead shall be limited.

(c) Engineering methods for the control of airborne lead emissions, which shall include the following:

(i) Process separation, automation or enclosure;

(ii) local exhaust ventilation of process, equipment and tools for the prevention of airborne lead emissions;

(iii) use of wet methods where appropriate; and

(iv) separate workplaces for different processes.

(d) Emissions to atmosphere shall comply with the provisions of the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965).

(e) The employer shall establish appropriate work procedures which employees must follow, where materials are used or processes are carried out which could give rise to airborne lead emissions in the working environment, and such work procedures shall include written instructions for—

(i) the use and maintenance of process machinery, installations, equipment, tools and local extraction and ventilation systems;

(ii) the damping of lead, lead products and materials containing lead at workplaces before and during processing, handling, using, cleaning, stripping or removal;

(iii) the regular cleaning of machinery and work areas by vacuum cleaners wherever practicable or by a wet sweeper;

(iv) the correct use of personal protective equipment; and

(v) a system whereby changes in work procedures or processes that may indicate the need for early corrective action, can be readily identified.

(2) Die werkewer moet alle rekords van beramings en lugmonitering vir 'n minimum tydperk van drie jaar hou.

(3) Die werkewer moet alle rekords van biologiese monitering en mediese toesig en uitslae van biologiese toetse, vir 'n minimum tydperk van 20 jaar na diens beëindiging hou.

Beheer oor luggedraagde lood

10. Elke werkewer moet die blootstelling van persone aan lood in die werkomgewing beheer deur die toepassing van die volgende maatreëls, waar toepaslik:

(a) Lood en materiaal wat lood bevat wat by die werkplek gebruik word en wat moontlik luggedraagde lood kan vrystel, moet beperk word.

(b) Die aantal werknemers wat blootgestel is of wat waarskynlik blootgestel sal word aan lood wat ontstaan uit die gebruik, hantering of prosessering van lood of materiale wat lood bevat, moet beperk word.

(c) Ingenieursbeheer om luggedraagde loodvrystellings te beheer, wat die volgende moet insluit:

(i) Prosesafbakening, outomatisasie of insluiting;

(ii) lokale uitsuigventilasie van prosesse, toerusting en gereedskap om die vrylating van luggedraagde lood te voorkom;

(iii) gebruik van natmetodes, waar toepaslik; en

(iv) afsonderlike werkplekke vir verskillende prosesse.

(d) Vrylatings na die atmosfeer moet voldoen aan die bepalings van die Wet op die Voorkoming van Lugbesoedeling, 1965 (Wet No. 45 van 1965).

(e) Die werkewer moet werkprosedures bepaal wat deur die werknemer gevolg moet word waar materiale of prosesse gebruik word wat aanleiding kan gee tot luggedraagde lood in die werkomgewing en sodanige werkprosedures moet insluit skriftelike instruksies vir—

(i) die gebruik en instandhouding van prosesmasjinerie, installasies, toerusting, gereedskap en lokale uitsuig- en ventilasiestelsels;

(ii) die bevogting van lood, loodprodukte en materiale wat lood bevat by werkplekke voor en gedurende prosessering, hantering, gebruik, skoonmaak, afstroop of verwydering;

(iii) die gereelde skoonmaak van masjinerie en werkgebiede met stofsuiers, waar uitvoerbaar, of met 'n nat veer;

(iv) die korrekte gebruik van persoonlike beskermende toerusting; en

(v) 'n stelsel waarvolgens veranderings in werkprosedures of -prosesse wat die noodsaaklikheid van vroeë korrektiewe aksie mag aandui, geredelik geïdentifiseer kan word.

Cleanliness of premises and plant

11. Every employer shall as far as practical take steps to ensure that—

(a) all workplaces are kept in a clean state and free of lead waste and, when lead is accidentally spilled or airborne lead is accidentally released into the workplace, corrective measures shall be taken immediately, before any work is continued;

(b) cleaning is carried out by vacuum-cleaning equipment with a filtration efficiency of at least 99 per cent for particles 1 micrometre in size, or by some other means that lead dust neither escapes nor is released into the air in such a manner that it contaminates any workplace or the environment;

(c) the vacuum-cleaning equipment is regularly serviced and all its external surfaces are kept in a clean state and free from visible lead dust; and

(d) where the use of vacuum-cleaning equipment is impracticable, surfaces which are to be cleaned shall be dampened and employees undertaking such cleaning shall wear appropriate protective clothing and respiratory protective equipment.

Personal protective equipment

12. (1) Every employer shall, in circumstances where it is not reasonably practicable to ensure by engineering control that the exposure of an employee is below or equal to the exposure limit for lead, provide such employee with respiratory protective equipment which will reduce the concentration of lead inhaled by the employee to a level which is below the exposure limit for lead.

(2) Every employer shall provide and maintain in good condition protective clothing for employees who are employed in a respirator zone or a lead area: Provided that when working with tetra-alkyl leads such employees are provided with impermeable protective clothing.

(3) No employer shall require or permit any person to enter or remain in an area demarcated in accordance with subregulation 6 (4) unless such person wears the prescribed protective clothing, and in the case of a respirator zone also the respiratory protective equipment contemplated in subregulation (1).

(4) Every employer shall—

(a) take steps to ensure that personal protective equipment and clothing are properly maintained and used;

(b) take steps to ensure that no respiratory protective equipment or protective clothing is re-issued for use by another person unless it has been thoroughly cleaned and serviced in accordance with the instructions of the manufacturer, and in the case of respiratory protective equipment, disinfected;

Sindelikheid van perseel en toerusting

11. Elke werkewer moet, sover toepaslik, maatreëls tref om te verseker dat—

(a) alle werkplekke in 'n skoon toestand gehou word en dat dit vry van loodafval is, en wanneer lood per abuis gestort word of luggedraagde lood per abuis in die werkplek vrygestel word, moet korrekttiewe maatreëls onmiddellik gevolg word voordat enige werk voortgesit word;

(b) skoonmaak deur stofsuigtoerusting gedoen word met 'n filtrerndoeltreffendheid van ten minste 99 persent vir stofdeeltjies een mikrometer in grootte, of op so 'n ander wyse dat loodstof nog kan ontsnap nog in die lug vrygelaat word om enige werkplek of die omgewing te besoedel;

(c) die stofsuigtoerusting gereeld versien word en al die eksterne oppervlaktes daarvan in 'n skoon toestand en vry van sigbare loodstof gehou word; en

(d) waar die gebruik van stofsuigtoerusting onprakties is, moet die oppervlakte wat skoongemaak moet word, natgemaak word en moet die werknemers wat sodanig skoonmaak onderneem, toepaslike beskermende klere en asemhalingbeskermingstoerusting dra.

Persoonlike beskermende toerusting

12. (1) Elke werkewer moet, onder omstandighede waar dit nie redelikerwys uitvoerbaar is om by wyse van ingenieursbeheer te verseker dat die blootstelling van 'n werknemer onder of gelyk aan die blootstellingsdrempel vir lood is nie, sodanige werknemer van asemhalingbeskermingstoerusting voorsien wat sodanig is dat dit die konsentrasie lood wat deur die werknemer ingeasem word, verminder tot 'n vlak benede die blootstellingsdrempel vir lood.

(2) Elke werkewer moet geskikte beskermende klere aan werknemers wat in 'n respiratorsone of loodgebied werk, voorsien en in goeie toestand hou: Met dien verstande dat wanneer sodanige werknemers met tetra-alkiellood werk, hulle van ondeurdingbare beskermende klere voorsien moet word.

(3) Geen werkewer mag vereis of toelaat dat 'n persoon 'n gebied wat in ooreenstemming met regulasie 6 (4) afgebaken is, binnegaan of daar binne bly nie tensy sodanige persoon geklee is in die voorgeskrewe beskermende klere en, in die geval van 'n respiratorsone, ook die asemhalingbeskermingstoerusting soos in subregulasie (1) beoog, gebruik.

(4) Elke werkewer moet—

(a) maatreëls tref om te verseker dat persoonlike beskermende toerusting en klere behoorlik in stand gehou en gebruik word;

(b) maatreëls tref om te verseker dat geen asemhalingbeskermingstoerusting of beskermende klere heruitgereik word vir gebruik deur 'n ander persoon nie, tensy dit deeglik skoongemaak en behoorlik versien is in ooreenstemming met die vervaardiger se voorskrifte, en in die geval van asemhalingsbeskermingstoerusting, ook ontsmet is;

(c) provide containers or storage facilities for protective equipment and protective clothing when not in use;

(d) provide employees who work in lead areas or respirator zones with washing facilities and changing facilities which are designed in such a manner that the changing facilities are separated into a "clean change-room" and a "dirty change-room" by the washing facilities: Provided that the facilities are in accordance with the requirements of SABS 0400, as regards the size of the change-rooms, and the number of wash-basins and showers which need to be provided: Provided further that for a period of 36 months from the date of commencement of these regulations, the requirements of this paragraph shall not apply to existing factory premises;

(e) provide each such employee with adequate facilities for the safe keeping of personal clothing in the "clean change-room" and contaminated protective equipment in the "dirty change-room"; and

(f) take steps to ensure that all protective clothing in use is stored only in the place provided therefor.

(5) Every employer shall make provision for the handling and laundering of protective clothing as follows:

(a) Where such clothing is laundered on the premises, care shall be taken to prevent the emission of lead dust during handling, transport and laundering;

(b) where such clothing is sent outside the premises to a laundry for cleaning purposes, the clothing shall be packed in dustproof containers, and such containers shall be tightly enclosed and clearly identified as containing lead-contaminated clothing;

(c) where a laundry is used, the employer shall ensure that the contractor is fully informed of the requirements of these regulations and understands the precautions necessary for the handling of lead-contaminated clothing.

(6) Every employer shall ensure that no person removes dirty or contaminated protective clothing or equipment from the premises, except for the purpose of cleaning and subject to the provisions of paragraph (b) and (c) of subregulation (5).

Prohibitions

13. (1) No person shall use compressed air to blow away particles of lead from any surface or require or permit any other person to use compressed air to blow away particles of lead from any surface.

(2) No person shall smoke, eat, drink or keep food or beverages in a lead area or respirator zone or require or permit any other person to smoke, eat, drink or keep food or beverages in such an area or zone.

(3) Lead paint shall not be—

(a) used for the interior painting of buildings;

(c) houers of opbergfasiliteite vir beskermende toerusting en klere voorsien wanneer dit nie in gebruik is nie;

(d) aan werknemers wat in 'n loodgebied of 'n respiratorsone werk, was- en kleedfasiliteite voorsien wat op so 'n wyse ontwerp is dat die kleedfasiliteite deur die wasfasiliteite in 'n "skoon-kleedkamer" en "vuil-kleedkamer" verdeel word: Met dien verstande dat die fasiliteite in ooreenstemming is met die vereistes van SABS 0400 vir sover dit die grootte van die kleedkamers aangaan, en die aantal wasbakke en storte wat voorsien moet word: Met dien verstande, voorts dat vir 'n tydperk van 36 maande vanaf die datum van inwerkintreding van hierdie regulasies, die voorgaande bepalings van hierdie paragraaf nie van toepassing sal wees op bestaande fabrieksperselle nie;

(e) elke sodanige werknemer voorsien van bewaringsfasiliteite vir persoonlike klere in die "skoon-kleedkamer" en gekontamineerde beskermende toerusting in die "vuil-kleedkamer"; en

(f) maatreëls tref om te verseker dat alle beskermde klere in gebruik, slegs in die plek daarvoor voorsien, gebêre word.

(5) Elke werkewer moet soos volg voorsiening maak vir die hantering en skoonmaak van beskermende klere:

(a) Waar sodanige klere op die perseel skoonmaak word, moet voorsorg getref word om die vrylating van loodstof gedurende hantering, vervoer en skoonmaak te voorkom;

(b) waar sodanige klere na 'n wassery weg van die perseel af gestuur word om skoongemaak te word, moet die kledingstukke in stofdigte houers geplaas word en sodanige houers moet dig toegemaak wees en duidelik gemerk word om aan te dui dat dit klere wat met lood besoedel is, bevat;

(c) waar van 'n wassery gebruik gemaak word, moet die werkewer toesien dat die kontrakteur ten volle ingelig is aangaande die vereistes van hierdie regulasies en die noodsaaklike voorsorgmaatreëls vir die hantering van loodbesoedelde klere.

(6) Elke werkewer moet toesien dat geen persoon vuil of gekontamineerde beskermende klere of toerusting van die perseel verwyder nie, behalwe met die doel om behoudens die bepalings van paragrawe (b) en (c) van subregulasie (5) skoongemaak te word.

Verbodsbeplings

13. (1) Niemand mag saamgeperste lug gebruik om looddeeltjies vanaf enige oppervlakte weg te verwyn of vereis of toelaat dat enige ander persoon saamgeperste lug gebruik om looddeeltjies van enige oppervlak te verwyn nie.

(2) Niemand mag rook, eet, drink of kos of drank in 'n loodgebied of respiratorsone inneem of daarin hou of van enige ander persoon vereis of hom toelaat om binne sodanige gebied of sone te rook, eet, drink of kos of drank daarin te neem of daarin te hou nie.

(3) Loodverf mag nie—

(a) gebruik word vir binneverf van geboue nie;

(b) scraped or rubbed down from a surface by a dry process; or
 (c) removed by burning.

(4) No person under the age of 18 years shall work or be permitted to work in a lead area or a respirator zone.

Processing of lead

14. Every employer who processes lead or materials containing lead, shall ensure that—

(a) where work has to be carried out to any great extent on lead or materials containing lead, such work is done in an isolated part of the workplace specifically set aside for such purpose and which has been zoned as prescribed by regulation 6 (4); and

(b) such work is done only with tools specially designed to minimise the creation of airborne lead or with tools fitted with extraction and filtration equipment.

Packaging, transport and storage

15. Every employer shall, as far as is reasonably practicable, take steps to ensure that—

(a) all lead materials in storage, in transit or distributed are properly contained and are controlled to prevent the spread of contamination by lead from the place where work is being carried out; and.

(b) the containers or the vehicles in which such materials are transported are clearly marked, identifying the contents as lead.

Disposal of lead waste

16. Every employer shall—

(a) as far as is possible, recycle all waste which contains lead, but not into non-lead production processes;

(b) ensure that all collected lead dust, swarf and other waste is placed into containers that will prevent the escape of lead dust during handling;

(c) ensure that all lead sludge, not for recycling, is placed in properly sealed containers to prevent spillage;

(d) ensure that all such waste is disposed of only on sites specifically designated for this purpose in terms of the Environmental Conservation Act, 1982 (Act No. 100 of 1982), in such a manner that it does not cause a hazard inside or outside the premises;

(e) ensure that all employees occupied in the collection, transport and disposal of lead waste who may be at risk of exposure to lead are provided with suitable protective clothing, and respiratory protective equipment;

(f) ensure that all vehicles, containers which are reusable and covers which have been in contact with lead waste are cleaned in accordance with the provisions of regulation 11;

(g) give written instructions and appropriate training to the drivers of vehicles carrying such waste, on the action to be taken in the event of accidental spillage of lead waste; and

(b) afgeskraap of afgelyf word van 'n oppervlak deur middel van 'n droë proses nie; of

(c) afgebrand word nie.

(4) Geen persoon onder die ouderdom van 18 jaar mag werksaam wees, of toegelaat word om werksaam te wees in 'n loodgebied of respiratorsone nie.

Prosessering van lood

14. Elke werkewer wat lood of materiale wat lood bevat, prosesseer, moet toesien dat—

(a) waar 'n groot hoeveelheid werk gedoen moet word op lood of materiale wat lood bevat, sodanige werk gedoen word in 'n afgesonderde gedeelte van die werkplek wat spesifiek vir daardie doel oop gesit is en wat gesoneer is soos deur regulasie 6 (4) voorgeskryf; en

(b) sodanige verwerking slegs gedoen word met gereedskap wat spesiaal ontwerp is om die voortbring van luggedraagde lood tot 'n minimum te beperk of met gereedskap wat van uitsuig- en filtreringstoerusting vir luggedraagde lood voorsien is.

Verpakking, vervoer en opbergung

15. Elke werkewer moet, waar dit prakties moontlik is, maatreëls tref om te verseker dat—

(a) alle loodmateriale wat opgeberg, vervoer of versprei word, behoorlik ingesluit en beheer word om loodbesoeding te voorkom; en

(b) die houers of die voertuie waarin sodanige materiale vervoer word, duidelik gemerk is om die inhoud as lood te identifiseer.

Beskikking oor loodaafval

16. Elke werkewer moet—

(a) sover as moontlik alle afval wat lood bevat, hersirkuleer maar nie in nie-lood produksieprosesse nie;

(b) toesien dat alle versamelde loodstof, snysels en ander afval binne-in houers geplaas word, om die vrylating van loodstof gedurende hantering te voorkom;

(c) toesien dat alle loodslyk wat nie vir hersirkulasie bedoel is nie, in behoorlik verseêerde houers geplaas word om storting van die slyk te voorkom;

(d) toesien dat al sodanige afval slegs gestort word op terreine wat spesifiek vir die doel ingevolge die Wet op Omgewingsbewaring, 1982 (Wet No. 100 van 1982), aangewys is, en op so 'n wyse dat dit nie 'n gevaa veroorsaak binne of buite die perseel nie;

(e) toesien dat alle werknemers wat betrokke is by die versameling, vervoer en wegdoening van loodaafval en wat risiko loop om blootgestel te word aan lood, voorsien word van geskikte beskermende klere en asemhalingbeskermingstoerusting;

(f) toesien dat alle voertuie, houers wat hergebruik gaan word en deksels wat met loodaafval in aanraking was, ooreenkomsdig die bepalings van regulasie 11 skoongemaak word;

(g) geskrewe instruksies en toepaslike opleiding gee aan bestuurders van voertuie wat loodaafval vervoer oor die stappe wat geneem moet word indien loodaafval per abuis uitstort; en

(h) if the services of a waste disposal contractor is used, incorporate a provision into the contract that the contractor shall also comply with the provisions of these regulations.

Offences and penalties

17. Any person who contravenes or fails to comply with any provision of regulation 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 or 16 shall be guilty of an offence and liable on conviction to a fine not exceeding R1 000 or to imprisonment for a period not exceeding six months and, in the case of a continuous offence, to an additional fine of R5 for each day on which the offence continues or additional imprisonment of one day for each day on which the offence continues: Provided that the period of such additional imprisonment shall in no case exceed 90 days.

Short title

18. These regulations shall be called the Lead Regulations, 1991.

No. R. 615

22 March 1991

NOTICE OF THE INCORPORATION OF SAFETY STANDARDS UNDER THE MACHINERY AND OCCUPATIONAL SAFETY ACT, 1983 (ACT NO. 6 OF 1983)

LEAD REGULATIONS

Under section 36 (1) of the Machinery and Occupational Safety Act, 1983 (Act No. 6 of 1983), I, Eli van der Merwe Louw, Minister of Manpower, after consultation with the Advisory Council for Occupational Safety, hereby incorporate the safety standard contained in South African Bureau of Standards' Standard Method for the Determination of Lead (Inorganic and Tetra-alkyl) in Workplace Air by Atomic Absorption and Spectrophotometry, SABS 1164-1989, into the Lead Regulations, 1991.

E. VAN DER M. LOUW,
Minister of Manpower.

(h) indien 'n kontrakteur aangestel is om oor die loodafval te beskik, 'n bepaling in die kontrak laat opneem dat die kontrakteur ook aan die bepalings van hierdie regulasies, asook enige wysigings daarvan, moet voldoen.

Misdrywe en strawwe

17. Enigeen wat 'n bepaling van regulasie 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 of 16 oortree of versuim om daaraan te voldoen, is aan 'n misdryf skuldig en by skuldigbevinding strafbaar met 'n boete van hoogstens R 1 000 of met gevangenisstraf vir 'n tydperk wat nie ses maande oorskry nie, en, in die geval van 'n voortdurende oortreding, met 'n addisionele boete van R5 of addisionele gevangenisstraf van een dag vir elke dag waarop die misdryf voortduur: Met dien verstande dat die tydperk van addisionele gevangenisstraf in geen geval 90 dae mag oorskry nie.

Kort titel

18. Hierdie regulasies heet die Loodregulasies, 1991.

No. R. 615

22 Maart 1991

KENNISGEWING VAN DIE INLYWING VAN VEILIGHEIDSTANDAARDE KRAGTENS DIE WET OP MASJINERIE EN BEROEPSVEILIGHEID, 1983 (WET NO. 6 VAN 1983).

LOODREGULASIES

Kragtens artikel 36 (1) van die Wet op Masjinerie en Beroepsveiligheid, 1983 (Wet No. 6 van 1983), lyf ek, Eli van der Merwe Louw, Minister van Mannekrag, na oorlegpleging met die Adviesraad vir Beroepsveiligheid, die veiligheidstandaarde vervat in die Suid-Afrikaanse Buro vir Standaarde se Standaardmetode vir die Bepaling van Lood (Anorganiese en Tetra-alkiel) in die Lug van die Werkplek met Atoomabsorpsie en Spektrofotometrie, SABS 1164-1989, by die Loodregulasies, 1991, in.

E. VAN DER M. LOUW,
Minister van Mannekrag.

Don't abuse



water is for everybody

Use it.

Werk mooi daarmee.

Ons leef daarvan.

water is kosbaar

IMPORTANT ANNOUNCEMENT

Closing times PRIOR TO PUBLIC HOLIDAYS for

**LEGAL NOTICES 1991
GOVERNMENT NOTICES**

The closing time is 15:00 sharp on the following days:

- **21 March**, Thursday, for the issue of Thursday **28 March**
- **27 March**, Wednesday, for the issue of Friday **5 April**
- **25 April**, Thursday, for the issue of Friday **3 May**
- **2 May**, Thursday, for the issue of Friday **10 May**
- **23 May**, Thursday, for the issue of Thursday **30 May**
- **3 October**, Thursday, for the issue of Friday **11 October**
- **12 December**, Thursday, for the issue of Friday **20 December**
- **17 December**, Tuesday, for the issue of Friday **27 December**
- **19 December**, Thursday, for the issue of Friday **3 January**

Late notices will be published in the subsequent issue. If, under special circumstances, a late notice is being accepted, a double tariff will be charged

The copy for a **SEPARATE Government Gazette** must be handed in not later than three calendar weeks before date of publication

BELANGRIKE AANKONDIGING

Sluitingstye VOOR VAKANSIEDAE vir

**WETLIKE KENNISGEWINGS 1991
GOEWERMENTSKENNISGEWINGS**

Die sluitingstyd is stiptelik 15:00 op die volgende dae:

- **21 Maart**, Donderdag, vir die uitgawe van Donderdag **28 Maart**
- **27 Maart**, Woensdag, vir die uitgawe van Vrydag **5 April**
- **25 April**, Donderdag, vir die uitgawe van Vrydag **3 Mei**
- **2 Mei**, Donderdag, vir die uitgawe van Vrydag **10 Mei**
- **23 Mei**, Donderdag, vir die uitgawe van Donderdag **30 Mei**
- **3 Oktober**, Donderdag, vir die uitgawe van Vrydag **11 Oktober**
- **12 Desember**, Donderdag, vir die uitgawe van Vrydag **20 Desember**
- **17 Desember**, Dinsdag, vir die uitgawe van Vrydag **27 Desember**
- **19 Desember**, Donderdag, vir die uitgawe van Vrydag **3 Januarie**

Laat kennisgewings sai in die daaropvolgende uitgawe geplaas word. Indien 'n laat kennisgewing wel, onder spesiale omstandighede, aanvaar word, sal 'n dubbeltarief gehef word

Wanneer 'n **APARTE Staatskoerant** verlang word moet die kopie drie kalenderweke voor publikasie ingediend word

IMPORTANT ANNOUNCEMENT

Closing Times

- (1) APPLICATIONS FOR LIQUOR LICENCES
- (2) APPLICATIONS FOR REMOVAL OF LICENCES

Notice is hereby given that notices are to be submitted for acceptance on the Friday, two calendar weeks before date of publication.

The closing time is **15:00** sharp on the following days:

- ▷ **23 November 1990**, for the issue of Friday **7 December 1990**.
- ▷ **18 December 1990**, for the issue of Friday **4 January 1991**.
- ▷ **18 January 1991**, for the issue of Friday **1 February 1991**.
- ▷ **15 February 1991**, for the issue of Friday **1 March 1991**.
- ▷ **20 March 1991**, for the issue of Friday **5 April 1991**.
- ▷ **18 April 1991**, for the issue of Friday **3 May 1991**.

Note: Late notices will be placed in the subsequent issue.

Information will be reflected exactly as furnished on Form 2 and Form 28 of prospective applicant.

BELANGRIKE AANKONDIGING

Sluitingstye

- (1) AANSOEKE OM DRANKLISENSIES
- (2) AANSOEKE OM VERPLASINGS VAN LISENSIES

Hiermee word bekendgemaak dat kennisgewings vir aanname die Vrydag, twee kalenderweke voor datum van publikasie, ingediën moet word.

Die sluitingstyd is stiptelik **15:00** op die volgende dae:

- ▷ **23 November 1990**, vir die uitgawe van Vrydag **7 Desember 1990**.
- ▷ **18 Desember 1990**, vir die uitgawe van Vrydag **4 Januarie 1991**.
- ▷ **18 Januarie 1991**, vir die uitgawe van Vrydag **1 Februarie 1991**.
- ▷ **15 Februarie 1991**, vir die uitgawe van Vrydag **1 Maart 1991**.
- ▷ **20 Maart 1991**, vir die uitgawe van Vrydag **5 April 1991**.
- ▷ **18 April 1991**, vir die uitgawe van Vrydag **3 Mei 1991**.

L.W.: Laat kennisgewings sal in die daaropvolgende uitgawe geplaas word.

Gegewens word presies weergegee soos verstrek op Vorm 2 en Vorm 28 van voornemende aansoeker.

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