BUITENGEWONE

# OFFISIËLE KOERANT VAN SUIDWES-AFRIKA

# OFFICIAL GAZETTE OF SOUTH WEST AFRICA

EXTRAORDINARY

UITGAWE OP GESAG — PUBLISHED BY AUTHORITY

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## Goewermentskennisgewing

Die volgende Goewermentskennisgewing word vir algemene inligting gepubliseer.

H. S. P. W. VAN NIEUWENHUIZEN,
Sekretaris van Suidwes-Afrika.

Kantoor van die Administrateur,
Windhoek

No. 229] [26 November 1974

Die Uitvoerende Komitee het kragtens en ingevolge die bepalings van artikel 27 van die Ordonnansie op Gevaarhoudende Stowwe, 1974 (Ordonnansie 14 van 1974) die volgende regulasies gemaak wat deur die hele Gebied Suidwes-Afrika van toepassing is, en aangesien die Uitvoerende Komitee, kragtens artikel 3(3)(b) van die Ordonnansie, van oordeel is dat die openbare belang dit vereis dat dit sonder versuim gedoen word, word die lys van elektroniese produkte genoem in Bylae F hiermee tot Groep III gevaarhoudende stowwe verklaar met ingang van die datum van inwerkingtreding van hierdie regulasies.

### REGULASIES BETREFFENDE DIE BEHEER VAN ELEKTRONIESE PRODUKTE.

#### I. WOORDOMSKRYWING.

In hierdie regulasies, tensy uit die samehang anders blyk, beteken -

## Government Notice

The following Government Notice is published for general information.

H. S. P. W. VAN NIEUWENHUIZEN,
Secretary for South West Africa.

Administrator's Office,
Windhoek.

No. 229] [26 November 1974

The Executive Committee has under and by virtue of the provisions of section 27 of the Hazardous Substances Ordinance, 1974 (Ordinance 14 of 1974) made the following regulations which shall be applicable throughout the whole of the Territory of South West Africa, and as the Executive Committee is, in terms of section 3(3)(b) of the Ordinance, of the opinion that the public interest requires that it be done without delay, the list of electronic products mentioned in Annexure F is hereby declared to be Group III hazardous substances with effect from the date of coming into operation of these regulations.

### REGULATIONS CONCERNING THE CONTROL OF ELECTRONIC PRODUCTS.

#### I. DEFINITIONS

In these regulations -

(1) "aangestelde geneesheer" 'n persoon wat as 'n mediese praktisyn by die Suid-Afrikaanse Geneeskundige en Tandheelkundige Raad geregistreer en ingevolge regulasie III. 5(a)(3) aangewys is; (7)

(2) "aluminiumekwivalent" die dikte aluminium wat in voorgeskrewe toestande dieselfde attenuasie van 'n stralingsbundel sal veroorsaak as die betrokke materiaal; (5)

(3) "applikant" 'n persoon wat ingevolge regulasie II.3(a) om 'n lisensie of 'n endossement van 'n lisensie aansoek doen; (6)

(4) "blootstelling (X)" die kwosiënt van ▷ q gedeel deur ▷ m waar ▷ q die som is van die elektriese ladings op al die positiewe of negatiewe ione wat in die lug geproduseer word wanneer al die elektrone (negatrone en positrone), wat deur fotone vrygestel word in 'n volume-element van lug waarvan die massa ▷ m is, geheel en al in lug tot stilstand gebring word. Die eenheid van blootstelling is die roentgen (R)

$1R = 2{,}58 \times 10^{-4} C(kg)^{-1}$; (11)

(5) "bygevoegde filter" die filter wat by die inherente filtrasie bygevoeg word; (2)

(6) "Diens" die personeelmoniteerdiens genoem in regulasie III.5(c)(1); (44)

(7) "dosisekwivalent (DE)" die produk van die geabsorbeerde dosis (D) en die kwaliteitsfaktor (KF)
DE = D x KF
Die rem is die eenheid van dosisekwivalent en is numeries gelyk aan die geabsorbeerde dosis in rads vermenigvuldig met die kwaliteitsfaktor; (8)

(8) "dosislimiet" die maksimum dosisekwivalent wat die liggaam of 'n bepaalde deel van die liggaam van 'n lid van die publiek in 'n gegewe tydperk mag ontvang; en vir die doel van hierdie regulasies is die jongste dosislimietwaardes wat deur die IKRB aanbeveel word (waarvan besonderhede by die Direkteur verkrygbaar is) van toepassing; (9)

(9) "fantoom" 'n weefsel-ekwivalente medium wat gebruik word om die absorpsie- en verstrooiingseienskappe van 'n pasiënt se liggaam te simuleer; (33)

(10) "fokus-tot-vel-afstand (FVA)" die afstand vanaf die fokuspunt van die buis tot op die vel van die pasiënt wat behandel word; (13)

(11) "geabsorbeerde dosis (D)" die kwosiënt van ▷ Ed gedeel deur ▷ m, waar ▷ Ed die energie is wat deur ioniserende straling aan materie in 'n volume-element oorgedra word en ▷ m die massa van die materie in die betrokke volume-element is:

$$D = \frac{\triangleright Ed}{\triangleright m}$$

(1) "absorbed dose (D)" means the quotient of ▷ Ed by ▷m is the energy imparted by ionising radiation to matter in a volume element and ▷m is the mass of the matter in that volume element:

$$D = \frac{\triangleright Ed}{\triangleright m}$$

The rad is the unit of absorbed dose and is equivalent to $0{,}01 J(kg)^{-1}$; (11)

(2) "added filter" means the filter added to the inherent filtration; (5)

(3) "adequate protection" means protection against external radiation in such a way that the dose equivalent received by any person from sources external to the body does not exceed the maximum permissible doses or dose limits (as applicable) allowed by these regulations; (42)

(4) "adequate shielding" means, in relation to any building or apparatus housing a listed electronic product, shielding against ionising radiation by the use of lead or other suitable material as appropriate or by distance in such a way that the exposure at any point on the outer surface of such shielding or on the perimeter of any demarcating barrier around such building or product is such that the maximum permissible doses or dose limits (as applicable) allowed by these regulations, cannot be exceeded; (41)

(5) "aluminium equivalent" means the thickness of aluminium affording the same attenuation to a beam of radiation under specified conditions as the material in question; (2)

(6) "applicant" means a person applying for a licence or an endorsement of a licence pursuant to regulation II.3 (a); (3)

(7) "appointed medical practitioner" means a person registered with the South African Medical and Dental Council as a medical practitioner and designated in terms of regulation III.5 (a) (3); (1)

(8) "dose equivalent (DE)" means the product of absorbed dose (D) and the quality factor (QF):

DE = D x QF

The rem is the unit of dose equivalent and is numerically equal to the absorbed dose in rads multiplied by the quality factor; (7)

(9) "dose limit" means the maximum dose equivalent that the body or any specific part of the body of a member of the public shall be permitted to receive in a stated period of time; and for the purpose of these regulations the latest dose limit values recommended by the ICRP (details of which are obtainable from the Director shall apply; (8)

Die rad is die eenheid van geabsorbeerde dosis en is gelyk aan $0{,}01 J(kg)^{-1}$; (1)

(12) "gegewe dosis" die geabsorbeerde dosis by die maksimum soos verkry met 'n enkele stralingsveld wat 'n fantoom bestraal; (14)

(13) "gelyste elektroniese produk" 'n elektroniese produk gelys in Bylae F; (24)

(14) "geneeskundige fisikus" 'n persoon wat as sodanig deur die Suid-Afrikaanse Geneeskundige en Tandheelkundige Raad geregistreer is en wie se sertifikaat van registrasie as geneeskundige fisikus by die Raad geëndosseer is ten effekte dat hy geskik is om as stralingsgeneeskundige fisikus te praktiseer; (26)

(15) "grendel" 'n toestel wat toegang tot 'n gebied waar stralingsgevaar bestaan, verhinder deur die gevaar outomaties te verwyder wanneer 'n persoon daar ingaan; (2)

(16) "halveringsdikte (HVD)" die dikte van 'n absorbeermateriaal wat nodig is om die invallende straling tot die helfte van die oorspronklike intensiteit te attenueer; (15)

(17) "houer" enige individu, korporasie, vennootskap, firma, vereniging, trust, eiendomsmaatskappy, publieke of private inrigting, groep of agentskap wat in beheer van 'n gelyste elektroniese produk is, en aan wie 'n lisensie ingevolge regulasie II.2 uitgereik is; (16)

(18) "ingeslote installasie" 'n installasie waar die gelyste elektroniese produk en alle voorwerpe blootgestel aan die ioniserende straling geproduseer deur sodanige produk permanent in dieselfde ingeslote plek of kamer is, wat in die perseellisensie beskryf is, en waarin enersyds -

(i) geen persoon tydens stralingsblootstelling toegelaat word nie; of andersyds

(ii) pasiënte en/of gemagtigde persone wel tydens blootstelling toegelaat word mits toereikende afskerming, om toereikende beskerming te verseker, in die ingeslote plek beskikbaar is; (10)

(19) "inherente filter" 'n filter wat permanent in die nuttige bundel is en die venster van die X-straalbuis en enige permanente buisomhulsel insluit; (17)

(20) "inspekteur" 'n persoon genoem in artikel )(1)(b) van die Ordonnansie; (18)

(21) "installasie" 'n gelyste elektroniese produk met ygaande toerusting en die ruimte waarin dit geleë is; 19)

(22) "Internasionale Komitee vir Radiologiese eskerming, (IKRB) die internasionale liggaam van

(10) "enclosed installation" means an installation where the listed electronic product and all objects exposed to ionising radiation produced by such product are permanently within the same enclosure or room described in the premises licence and within which either -

(i) no person is permitted to remain during radiation exposure; or

(ii) patients and/or authorised persons may remain during exposure provided that adequate shielding so as to ensure adequate protection is available inside the enclosure; (18)

(11) "exposure (X)" is the quotient of $\triangleright Q$ by $\triangleright m$ where $\triangleright Q$ is the sum of the electric charges on all ions of one sign produced in air when all the electrons (negatrons and positrons), liberated by photons in a volume element of air of which the mass is $\triangleright m$, are completely stopped in air. The unit of exposure is the roentgen (R):

$1R = 2{,}58 \times 10^{-4} C(kg)^{-1}$; (4)

(12) "external radiation" means radiation received by the body from radiation sources external to it; (45)

(13) "focus-to-skin distance (FSD)" means the distance from the focal spot of the tube to the skin of the patient being treated; (10)

(14) "given dose" means the absorbed dose at the maximum for one radiation field irradiating a phantom; (12)

(15) "half value layer (HVL)" means the thickness of an absorber required to attenuate the incident radiation to half the original intensity; (16)

(16) "holder" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group or agency who or which is in control of a listed electronic product, and to whom or which a licence was issued in terms of regulation II.2; (17)

(17) "inherent filter" means the filter permanently in the useful beam, and includes the window of the X-ray tube and any permanent tube enclosure; (19)

(18) "inspector" means a person referred to in section 9(1)(b) of the Ordinance; (20)

(19) "installation" means a listed electronic product with associated equipment and the space in which it is located; (21)

(20) "interlock" means a device for precluding access to an area of radiation hazard by automatically removing the hazard upon entry thereto by a person; (15)

deskundiges op die gebiede van radiologie, stralingsbeskerming, fisika, biologie, genetika, biochemie en biofisika, wat sedert 1928 onder beskerming van die Internasionale Kongres van Radiologie funksioneer. Die IKRB berei, hersien en publiseer aanbevelings ter bevordering van doeltreffende stralingsbeskerming; (21)

(23) "ioniserende straling" straling afkomstig van 'n gelyste elektroniese produk wat in staat is om ione direk of indirek te produseer wanneer dit deur materie gaan; (22)

(24) "isodosiskurwes" kurwes wat punte in 'n fantoom, waarby die persentasie dieptedosis dieselfde is, met mekaar verbind; (23)

(25) "kwaliteitsfaktor (KF)" die vermoë van 'n bepaalde tipe ioniserende straling om skade te veroorsaak (waarvan besonderhede by die Direkteur verkrygbaar is); (37)

(26) "lid van die publiek" enige persoon wat nie ingevolge regulasie III.4(a) as 'n stralingswerker geregistreer is nie; (27)

(27) "maksimum toelaatbare dosis (MTD)" die maksimum dosisekwivalent wat die liggaam of 'n bepaalde deel van die liggaam van 'n stralingswerker in 'n gegewe tydperk mag ontvang; en vir die doel van hierdie regulasies is die jongste MTD-waardes wat deur die IKRB aanbeveel word (waarvan besonderhede by die Direkteur verkrygbaar is) van toepassing; (25)

(28) "nuttige bundel" enige ioniserende straling afkomstig van 'n gelyste elektroniese produk wat aangewend kan word vir die doel waarvoor die produk gebruik word; (47)

(29) "oop installasie" 'n installasie waar die gelyste elektroniese produk en alle voorwerpe blootgestel aan die ioniserende straling geproduseer deur sodanige produk nie permanent in dieselfde ingeslote plek of kamer is nie maar beperk is tot 'n gebied wat in die perseellisensie as die stralingsgebied aangewys word; (29)

(30) "pasiënt" 'n menslike wese wat om geneeskundige redes aan diagnostiese of terapeutiese prosedures onderwerp word; (30)

(31) "perseellisensie" 'n lisensie genoem in regulasie II.2(b); (34)

(32) "persentasie dieptedosis" die verhouding van die geabsorbeerde dosis (Dd) op 'n diepte (d) tot die geabsorbeerde dosis by die maksimum (Dm) gemeet op die sentrale as van 'n stralingsveld wat 'n fantoom bestraal.

$$\text{Persentasie dieptedosis} = \frac{Dd}{Dm} \times 100; \qquad (31)$$

(21) "International Committee on Radiological Protection (ICRP)" means the international body of experts in the fields of radiology, radiation protection, physics, biology, genetics, biochemistry and biophysics, functioning since 1928 under the auspices of the International Congress of Radiology. The ICRP prepares, reviews and publishes recommendations for the promotion of effective radiation protection; (22)

(22) "ionising radiation" means radiation emanating from a listed electronic product, capable of producing ions directly or indirectly in its passage through matter; (23)

(23) "isodose curves" means curves joining points in a phantom having the same percentage depth dose; (24)

(24) "listed electronic product" means an electronic product listed in Annexure F; (13)

(25) "maximum permissible dose (MPD)" means the maximum dose equivalent that the body of a radiation worker or specific parts of the body shall be permitted to receive in a stated period of time, and for the purpose of these regulations the latest values of MPD recommended by the ICRP (details of which are obtainable from the Director) shall apply; (27)

(26) "medical physicist" means a person who is registered as such by the South African Medical and Dental Council and whose certificate of registration as a medical physicist with the Council has been endorsed to the effect that he is competent to practise as a radiation medical physicist; (14)

(27) "member of the public" means any person who is not registered as a radiation worker in terms of regulation III.4 (a); (26)

(28) "modification" means an alteration which increases the danger in use as related to the emission of electronic product radiation; and "modify" has a corresponding meaning; (47)

(29) "open installation" means an installation where the listed electronic product and all objects exposed to ionising radiation produced by such product are not permanently within the same enclosure or room and are confined to an area designated as the radiation area in a premises licence. (29)

(30) "patient" means a human being subjected to diagnostic or therapeutic procedures for medical reasons; (30)

(31) "percentage depth dose" means the ratio of the absorbed dose (Dd) at a depth (d) to the absorbed dose at the maximum (Dm) measured on the central axis of a radiation field irradiating a phantom:

$$\text{Percentage depth dose} = \frac{Dd}{Dm} \times 100; \qquad (32)$$

(33) "persentasiedieptedosistabel" 'n tabel wat vir 'n gegewe FVA en 'n gegewe stralingskwaliteit die persentasie dieptedosisse vir verskillende veldgroottes op verskillende dieptes aandui; (32)

(34) "produklisensie" 'n lisensie genoem in regulasie 11.2(a); (36)

(35) "proses" enige werksaamheid waarby die produksie, uitstraling of gebruik van ioniserende straling betrokke is uitgeslote dié vanaf radio-aktiewe materiaal; (35)

(36) "register" die register van stralingswerkers genoem in regulasie III.4(a); (42)

(37) "straling" ioniserende straling; (38)

(38) "stralingsgevaar" omstandighede waarin persone moontlik aan meer straling as die toepaslike maksimum toelaatbare dosis of dosislimiet blootgestel kan word; (39)

(39) "stralingsvoorval" 'n enkele gebeurtenis of reeks gebeurtenisse wat voorkom tydens die gebruik van 'n gelyste elektroniese produk en wat skadelike of potensieel skadelike blootstelling van enige persoon aan ioniserende straling tot gevolg het, direk vanweë die gebruik van sodanige produk; (40)

(40) "stralingswerker" 'n persoon wat potensieel blootgestel is aan ioniserende straling as gevolg van sy beroep en wat kragtens regulasie III.4(a) geregistreer is; (41)

(41) "toereikende afskerming" met betrekking tot enige gebou of apparaat wat 'n gelyste elektroniese produk bevat, afskerming teen ioniserende straling deur die gebruik van lood of ander geskikte materiaal soos toepaslik of deur afstand op so 'n wyse dat die blootstelling by enige punt op die buitenste oppervlak van sodanige afskerming of op die omtrek van enige grensversperring rondom so 'n gebou of produk sodanig is dat die maksimum toelaatbare dosisse of dosislimietwaardes (soos van toepassing) wat by hierdie regulasies veroorloof word, nie te bowe gegaan kan word nie; (4)

(42) "toereikende beskerming" beskerming teen uitwendige straling op so 'n wyse dat die dosisekwivalent wat enige persoon van bronne buite die liggaam ontvang, nie die maksimum toelaatbare dosisse of dosislimietwaardes (soos van toepassing) wat by hierdie regulasies veroorloof word, te bowe gaan nie; (3)

(43) "totale filter" die som van die inherente en bygevoegde filters; (46)

(44) "tydkaart" 'n kaart waarop vir 'n gegewe stralingskwaliteit die blootstellingstye wat vereis word om op 'n bepaalde FVA gegewe dosisse vir verskillende veldgroottes te lewer, aangedui word; (46)

(32) "percentage depth dose table" means a table indicating for a specified FSD and a specified radiation quality the percentage depth doses for different field sizes at different depths; (33)

(33) "phantom" means a tissue-equivalent medium used to simulate the absorption and scatter characteristics of a patient's body; (9)

(34) "premises licence" means a licence referred to in regulation II.2 (b); (31)

(35) "process" means any operation involving the production, emission or use of ionising radiation excluding that from radioactive materials; (35)

(36) "product licence" means a licence referred to in regulation II.2(a); (34)

(37) "quality factor (QF)" means the ability of a particular type of ionising radiation to produce damage (details of which are obtainable from the Director); (25)

(38) "radiation" means ionising radiation; (37)

(39) "radiation hazard" means a condition under which persons might receive radiation in excess of the applicable maximum permissible dose or dose limit; (38)

(40) "radiation occurrence" means a single event or series of events occurring in the course of the use of a listed electronic product which has resulted in injurious or potentially injurious exposure of any person to ionising radiation as a direct result of the use of that product; (39)

(41) "radiation worker" means any person who is potentially exposed to ionising radiation as a result of his occupation and who has been registered in terms of regulation III.4 (a); (40)

(42) "register" means the register of radiation workers referred to in regulation III.4 (a); (36)

(43) "responsible person" means the person nominated by the holder pursuant to regulation III.3 (e); (46)

(44) "Service" means the personnel monitoring service referred to in regulation III.5(c) (1); (6)

(45) "uitwendige straling" straling wat die liggaam vanaf stralingsbronne buite die liggaam ontvang; (12)

(46) "verantwoordelike persoon" die persoon wat ingevolge regulasie III.3(e) deur die houer benoem is; (43)

(47) "wysiging" 'n verandering wat met betrekking tot straling afkomstig van 'n gelyste elektroniese produk 'n toename in die gebruiksgevare sal veroorsaak; en "wysig" het 'n ooreenstemmende betekenis; (28)

(48) "X-straaleenheid" 'n elektroniese produk wat ontwerp, vervaardig of saamgestel is met die premêre doel om X-strale te produseer of wat X-strale benut om sy primêre doel te verwesenlik en van waar sodanige uitstraling bestem is. (48)

## II. LISENSIES DEUR DIE DIREKTEUR UITGEREIK

### II.1 *Toepaslikheid*

Die bepalings van hierdie regulasie is van toepassing op enige persoon wat 'n gelyste elektroniese produk gebruik, wysig of wegdoen.

### II.2 *Lisensies*

(a) Niemand mag 'n gelyste elektroniese produk gebruik nie, tensy sodanige produk deur die Direkteur gelisensieer is, behoudens die voorwaardes wat hy mag oplê. Hierdie lisensie word 'n "produklisensie" genoem.

(b) Niemand mag 'n gelyste elektroniese produk op 'n perseel gebruik nie, tensy sodanige perseel deur die Direkteur gelisensieer is behoudens die voorwaardes wat hy mag oplê. Hierdie lisensie word 'n "perseellisensie" genoem.

(c) Niemand mag 'n gelisensieerde elektroniese produk wysig of wegdoen of 'n gelisensieerde perseel wysig of die tipe of uitleg van toerusting insluitende die elektroniese produk op sodanige perseel wysig nie, tensy die goedkeuring van die Direkteur by wyse van 'n endossement op die betrokke lisensie verkry is.

### II.3 *Aansoek om 'n lisensie of om endossement van 'n lisensie*

(a) 'n Aansoek om 'n lisensie of om endossement van 'n lisensie ingevolge regulasie II.2 moet aan die Direkteur voorgelê word op die vorms wat onderskeidelik in bylaes A en B getoon word en wel hoogstens 90 dae na die datum van inwerkingtreding van hierdie regulasies of minstens 90 dae voor die beoogde datum van die voorgenome handeling, welke ook al die laaste is.

(45) "time chart" means a chart indicating for a specified radiation quality the exposure times required with different field sizes to yield specified given doses at a specified FSD; (44)

(46) "total filter" means the sum of the inherent and added filters; (43)

(47) "useful beam" means any ionising radiation from a listed electronic product that can be employed for the purpose for which such product is used; (28)

(48) "X-ray unit" means an electronic product which is designed, manufactured or assembled with the primary purpose of producing X-rays or which utilises X-rays to accomplish its primary purpose and from which such emissions are intended. (48)

## II. LICENCES ISSUED BY THE DIRECTOR

### II.1 *Applicability*

The provisions of this regulation are applicable to any person who uses, modifies or disposes of a listed electronic product.

### II.2 *Licences*

(a) No person shall use a listed electronic product unless such product has been licensed by the subject to such conditions as he may impose. This licence shall be called a "product licence".

(b) No person shall use a listed electronic product on any premises unless such premises have been licensed by the Director subject to such conditions as he may impose. This licence shall be called a "premises licence".

(c) No person shall modify or dispose of a licensed electronic product or modify any licensed premises or the type of or layout of equipment including the electronic product on any such premises, except by approval of the Director who shall endorse the relevant licence accordingly.

### II.3 *Application for a licence or an endorsement of a licence*

(a) An application for a licence or an endorsement of a licence in terms of regulation II.2 shall be submitted to the Director on the forms shown in Annexures A and B, respectively, not more than 90 days following the effective date of these regulations or not less than 90 days prior to the expected date of performing the function contemplated, whichever is later.

(b) Die applikant moet op Vorm SWA. 1345 wat in Bylae D getoon word, enige ander toepaslike inligting betreffende stralingsgevare aan die Direkteur verstrek waarvan hy in enige stadium nadat 'n aansoek ingedien is bewus is en wat moontlik die uitreiking, intrekking of opskorting van 'n lisensie ingevolge regulasie III.2(b) mag beïnvloed.

II.4 *Toestaan van 'n lisensie*

(a) Alvorens die Direkteur 'n lisensie toestaan of endosseer, kan hy 'n mondelinge vertoë of 'n inspeksie ter plaatse deur 'n inspekteur of beide sodanige mondelinge vertoë en inspeksie vereis. Die Direkteur moet die applikant skriftelik te dien effekte in kennis stel en voorts ook aandui die plek waar en die tyd wanneer die applikant geleentheid sal kry om sodanige mondelinge vertoë te rig en/of die datum en die tyd wanneer die applikant persoonlik beskikbaar moet wees vir 'n inspeksie ter plaatse.

(b) Indien die Direkteur weier om 'n lisensie toe te staan of te endosseer, moet hy die applikant te dien effekte skriftelik in kennis stel met verstrekking van -

(1) die rede(s) vir sy weiering;

(2) die voorwaarde(s), as daar is, waaronder die lisensie of endossement toegestaan moet word;

(3) die laaste datum waarop besware deur die applikant ingedien kan word.

(c) Indien, volgens die oordeel van die Direkteur, twee of meer gelyste elektroniese produkte naby genoeg aan mekaar geleë is om as 'n enkele installasie beskou te word, kan hy vir die doel van die toestaan van 'n perseellisensie die persele waarop dit geleë is as een perseel beskou.

(d) Die Direkteur kan 'n tydelike lisensie toestaan om die gebruik van 'n gelysde elektroniese produk of perseel ten opsigte waarvan 'n aansoek ingedien is, te magtig totdat 'n lisensie of endossement toegestaan is of totdat die applikant ingevolge paragraaf (b) in kennis gestel is van die Direkteur se weiering om 'n lisensie of endossement toe te staan.

## III. VOORWAARDES WAARBEHOUDENS LISENSIES UITGEREIK KAN WORD.

III.1 *Toepaslikheid*

Die bepalings van hierdie regulasie is van toepassing op applikante en houers van lisensies wat kragtens hierdie regulasie uitgereik is.

(b) The applicant shall furnish the Director on Form SWA. 1345, shown in Annexure D, with any other relevant information regarding radiation dangers that he may be aware of at any time after an application has been filed and that could possibly influence the issue, withdrawal or suspension of such a licence pursuant to regulation III.2 (b).

II.4 *Granting of a licence*

(a) The Director before granting or endorsing a licence may require an oral representation or an inspection *in loco* by an inspector or both such oral representation and inspection. The Director shall give the applicant written notice to that effect, specifying the place where, and the time when, the applicant shall have an opportunity to make such oral representation and/or the date and time when the applicant shall be personally available for an inspection *in loco*.

(b) If the Director refuses to grant or endorse a licence he shall give the applicant written notice to that effect, stating -

(1) the reason(s) for his refusal;

(2) the conditions, if any, subject to which the licence or endorsement shall be granted;

(3) the latest date on which objections by the applicant may be submitted.

(c) If two or more listed electronic products are, in the opinion of the Director, situated near enough to one another to be regarded as one installation, he may, for the purpose of the granting of a premises licence, regard the sites upon which they are situated as one site.

(d) The Director may grant a temporary licence authorising the use of a listed electronic product or premises in respect of which an application has been filed, until a licence or endorsement is granted or the applicant is notified pursuant to paragraph (b) of the Director's refusal to grant a licence or endoresment.

## III. CONDITIONS SUBJECT TO WHICH LICENCES MAY BE ISSUED

III.1 *Applicability*

The provisions of this regulation are applicable to applicants and holders of licences issued in terms of these regulations.

*III.2 Bepalings met betrekking tot lisensies*

(a) 'n Lisensie wat ingevolge regulasie II.2 uitgereik word, is van toepassing slegs op die houer aan wie die lisensie uitgereik is.

(b) 'n Lisensie wat ingevolge regulasie II.2 uitgereik is, kan deur die Direkteur opgeskort of ingetrek word indien -

(1) die houer of enigeen van sy stralingswerkers aan 'n misdryf ingevolge hierdie regulasies skuldig bevind is;

(2) hy dit in 'n noodtoestand in die openbare belang ag;

(c) 'n Lisensie wat ingevolge regulasie II.2 uitgereik is, bly geldig totdat 'n versoek om die kansellasie, of tydelike of permanente oordrag daarvan deur die Direkteur goedgekeur is. Wanneer 'n lisensie gekanselleer is, moet die houer dit binne 30 dae na die datum van sodanige kansellasie aan die Direkteur terugstuur.

(d) Benewens ander toepaslike bepalings verleen 'n lisensie wat ingevolge regulasie II.2 toegestaan is aan die houer uitdruklik die reg om 'n gelysde elektroniese produk of gelisensieerde perseel alleenlik vir 'n gespesifiseerde doel te gebruik.

III.3 *Bepalings met betrekking tot applikante en lisensiehouers*

(a) 'n Handeling of versuim van enige persoon wat 'n misdryf kragtens hierdie regulasies uitmaak, word geag die handeling of versuim van die houer te wees, tensy hy bewys -

(1) dat hy bedoelde handeling of versuim nie veroorloof of oogluikend toegelaat het nie; en

(2) dat hy alle redelike maatreëls getref het om 'n handeling of versuim van die betrokke aard te voorkom; en

(3) dat 'n handeling of versuim, hetsy wettig of onwettig, van die betrokke aard onder geen voorwaarde of omstandighede in die loop van die werk of binne die bestek van die bevoegdheid van die betrokke persoon geval het nie.

(b) Die houer is aanspreeklik vir die volledige omvang van stralingsbeskerming met betrekking tot 'n gelyste elektroniese produk of perseel waarvoor hy oor 'n lisensie beskik. Sodanige aanspreeklikheid het betrekking op enige

III.2 *Provisions regarding licences*

(a) A licence issued in terms of regulation II.2 shall apply only to the holder to whom the licence was issued.

(b) Any licence issued in terms of regulation II.2 may be suspended or withdrawn by the Director if -

(1) the holder or any of his radiation workers is found guilty of an offence in terms of these regulations;

(2) he considers it in a case of emergency to be in the public interest.

(c) Any licence issued in terms of regulation II.2 shall remain in effect until request for cancellation, or temporary or permanent transfer thereof is approved by the Director. If a licence has been cancelled the holder shall return it to the Director within 30 days following the date of such cancellation.

(d) In addition to other relevant provisions a licence granted pursuant to regulation II.2 shall clearly entitle the holder to use a listed electronic product or licensed premises for a specified purpose only.

III.3 *Provisions regarding applicants and licence holders*

*(a)* An act or omission of any person which constitutes an offence under these regulations shall be deemed to be the act or omission of the holder unless he proves -

(1) that he did not permit or connive at such act or omission; and

(2) that he took all reasonable measures to prevent an act or omission of the nature in question; and

(3) that an act or omission whether legal or illegal, of the nature in question did not under any conditions or in any circumstances fall within the course of the work or the scope of the authority of the person concerned.

(b) The holder shall be liable for the entire scope of radiation protection with regard to a listed electronic product or premises for which he holds a licence. Such liability shall relate to any aspect that could reasonably be included

aspek wat redelikerwys onder stralingsbeskerming ingesluit kan word en behels benewens ander toepaslike verantwoordelikhede wat die Direkteur in die lisensie kan omskryf -

(1) doeltreffende organisasie vir beskerming en gedurige nougesette waaksaamheid ten opsigte van optimum werkmetodes in die besonder met betrekking tot roetinetake;

(2) tegniese ondersoeke om betroubaarheid en algehele tegniese voortreflikheid van toerusting geboue en grendels te verseker;

(3) die vertoon van geskikte waarskuwingstekens of kennisgewings wat maklik verstaanbaar is vir alle persone, by die ingange na, of op geskikte plekke in, alle gebiede waar persone kan ingaan en aan ioniserende straling blootgestel kan word;

(4) die toesien dat stralingswerkers en lede van die publiek aan minimum risiko's van stralingsblootstelling onderwerp word en dat die maksimum toelaatbare dosisse en dosislimietwaardes nie oorskry word nie.

(c) Die applikant moet die Direkteur oortuig van sy kennis en/of ondervinding ten opsigte van -

(1) die basiese beginsels van stralingsbeskerming oor die algemeen; en

(2) bepaalde aspekte van stralingsbeskerming soos van toepassing op die installasies onder sy beheer.

(d) 'n Applikant -

(1) wat nie aan die bepalings van paragraaf (c) kan voldoen nie; of

(2) vir wie dit beter pas,

kan in sy aansoek om 'n lisensie 'n geneeskundige fisikus, of enige ander persoon of persone wat aan die bepalings van paragraaf (c) voldoen en wat die Direkteur goedkeur, benoem om namens die houer uitvoering te gee aan die houer se verpligtinge ingevolge die betrokke lisensie. Na sodanige persoon word verwys as die "verantwoordelike persoon".

(e) die verantwoordelike persoon word skriftelik deur die houer daartoe aangewys en sodanige aanwysing moet daarvoor voorsiening maak dat -

(1) dit van krag bly totdat 'n versoek om intrekking of vervanging daarvan deur die Direkteur goedgekeur is;

under radiation protection, and, in addition to other relevant responsibilities which the Director may specify in the licence, shall include -

(1) effective protection organisation and continual conscientious regard for optimum methods of working with particular reference to routine operations;

(2) technical investigations to ensure reliability and overall technical excellence of equipment, buildings and interlocks;

(3) the display of appropriate warning signs or notices which are easily intelligible to all persons, at the entrances to, or at appropriate places in, all areas where persons may enter and may be exposed to ionising radiation;

(4) ensuring that radiation workers and members of the public are subjected to minimal risks from radiation exposure, and that the maximum permissible doses and dose limits are not exceeded.

(c) The applicant shall satisfy the Director as to his knowledge and/or experience regarding the -

(1) basic principles of radiation protection in general; as well as

(2) specific aspects of radiation protection as applicable to the installations under his control.

(d) An applicant who -

(1) is unable to comply with the provisions of paragraph (c); or

(2) finds it more appropriate;

may nominate, in the application for a licence, a medical physicist or any other person or persons to be approved by the Director who comply with the provisions of paragraph (c) to execute on behalf of the holder the holder's obligations under the applicable licence and who shall be referred to as the "responsible person".

(e) The responsible person shall receive designation as such, in writing, from the holder, which shall provide that -

(1) it will remain in effect until any request for withdrawal or replacement thereof is approved by the Director.

(2) die verantwoordelike persoon uitsluitlik teenoor die houer van die lisensie verantwoordelik is vir die nakoming van sy verpligtinge ingevolge die aanwysiging.

(f) Indien die Direkteur dit vereis, moet 'n applikant om of 'n houer van 'n lisensie of 'n benoemde of aangewese verantwoordelike persoon, hom aan 'n eksamen deur 'n persoon of komitee deur die Direkteur daartoe gemagtig, onderwerp om te bepaal of sodanige persoon aan die bepalings van paragraaf (c) voldoen.

(g) Die houer moet 'n inspekteur toelaat om gelisensieerde elektroniese produkte en persele te ondersoek en om insae te hê in en afskrifte te maak van toepaslike registers, boeke, verslae, geskrifte en dokumente, wat kan help om vas te stel of die houer aan die bepalings van hierdie regulasies voldoen.

(h) Indien die inspekteur dit vereis, moet die houer of sy verantwoordelike persoon die inspekteur op sy ondersoek vergesel.

III.4 *Bepalings met betrekking tot stralingwerkers*

(a) Elke houer moet 'n register (hieronder sy "register" genoem) hou waarin alle persone wat vanweë hulle beroep potensieel aan straling vanaf 'n gelyste elektroniese produk ten opsigte waarvan hy die lisensie hou, blootgestel word en wat in ooreenstemming met die jongste toepaslike aanbevelings van die IKRB deur die houer as stralingswerkers of leerlingstralingswerkers beskou word, as sodanig geregistreer moet wees. Die register moet die volgende bevat -

(1) die verslae wat ingevolge regulasie III.5(c)(4) deur die Diens verskaf word; en

(2) 'n rekord van registrasie van elke geregistreerde persoon bestaande uit -

(i) die Vorm SWA.1343 wat in Bylae C getoon word; en

(ii) die resultate van mediese ondersoeke voorgeskryf in regulasie III.5(b), ingevul op die Vorm SWA.1344 wat in Bylae C getoon word.

(b) Elke houer moet, binne 90 dae na die datum van uitreiking van die betrokke lisensie, die Direkteur voorsien van 'n kopie van Vorm SWA.1343 (Bylae C) ten opsigte van elke stralingswerker wie se naam in sy register verskyn.

(c) Elke houer moet die Direkteur onmiddellik in

(2) the responsible person is exclusively responsible to the holder of the licence for the fulfilment of his obligations under the designation.

(f) Any applicant for or holder of a licence, or nominated or designated responsible person shall, if required by the Director, submit himself for examination by a person or committee authorised thereto ty the Director in order to determine whether such person complies with the provisions of paragraph (e).

(g) The holder shall permit an inspector to inspect licensed electronic products and premises and to inspect and take copies of applicable registers, books, records, papers and documents which may assist in determining whether the holder is complying with these regulations.

(h) If so required by the inspector the holder or his responsible person shall accompany such inspector on the inspection.

III.4 *Provisions regarding radiation workers*

(a) Every holder shall keep a register (hereinafter referred to as his "register") in which all persons who as a result of their occupation are potentially exposed to radiation from a listed electronic product for which he holds the licence and who, in accordance with the latest applicable recommendations of the ICRP, are regarded by the holder as radiation workers or trainee radiation workers shall be registered as such. The register shall comprise -

(1) the reports furnished by the Service in accordance with regulation III.5(c)(4); and

(2) a record of registration for every registered person consisting of -

(i) Form SWA.1343 shown in Annexure C; and

(ii) the results of the medical examinations, prescribed in regulation III.5 (b), entered on Form SWA.1344 shown in Annexure C.

(b) Every holder shall within 90 days following the date of issue of the applicable licence furnish the Director with a copy of Form SWA.1343 (Annexure C) in respect of each radiation worker whose name appears in his register.

(c) Every holder shall immediately notify the

kennis stel van enige verandering in sy register vanweë die beëindiging van 'n stralingswerker se registrasie, om welke rede en tydsduur ook al, of vanweë die registrasie of herregistrasie van 'n stralingswerker. Sodanige kennisgewing moet geskied op die Vorm SWA.1343 wat in Bylae C getoon word.

(d) By beëindiging van sy registrasie by die houer moet die stralingswerker voorsien word van 'n diensverslag op Vorm SWA.1343 soos in Bylae C aangetoon

(e) Alvorens 'n persoon as stralingswerker herregistreer word, moet hy die verslag genoem in paragraaf (d) en enige ander besonderhede in verband met enige stralingswerk wat hy gedoen het aan die houer verstrek -

(1) vir die houer se oorweging en om hom tevrede te stel dat daar uit die vorige stralingswerk geen redes voortspruit waarom sodanige persoon nie verder as stralingswerker geregistreer kan word nie; en

(2) vir inskrywing in sy register.

(f) Die rekord van registrasie van elke stralingswerker wat ingevolge paragraaf (a) in die register gehou word, moet -

(1) bewaar word vir 'n tydperk van 10 jaar vanaf die datum van die laaste inskrywing en moet in ooreenstemming met regulasie III.3(g) vir inspeksie beskikbaar wees;

(2) indien die Direkteur dit vereis, aan hom versend word binne 30 dae na opskorting, intrekking of kansellasie van 'n lisensie ingevolge regulasie III.2(b) en (c).

(g) Elke houer moet verseker dat -

(1) alleenlik persone wat as stralingswerkers geregistreer is ingevolge paragraaf (a), met sy goedkeuring potensieel blootgestel word aan straling vanaf 'n gelyste elektroniese produk ten opsigte waarvan hy die lisensie hou, indien die toestande sodanig is dat die resulterende dosisse 3/10 van die jaarlikse maksimum toelaatbare dosisse mag oorskry;

(2) enige persoon wat potensieel blootgestel word aan straling vanaf 'n gelyste elektroniese produk waarvan die lisensie deur 'n ander houer gehou word, nieteenstaande die bepalings van subparagraaf

Director of any change in his register due to the termination, for whatever reason and period, of the registration of a radiation worker or due to the registration or re-registration of a radiation worker. Such notification shall be on Form SWA.1343 shown in Annexure C.

(d) A radiation worker shall, on the termination of his registration with a holder, be furnished with a record of service on Form SWA.1343 shown in Annexure C.

(e) Prior to re-registration as a radiation worker a person shall furnish the record referred to in paragraph (d) and any other details regarding radiation work done by him to the holder -

(1) for his consideration and assurance that there are no objections arising from previous radiation work to further registration of such a person as radiation worker; and

(2) for entry in his register.

(f) The record of registration of every radiation worker kept in the register pursuant to paragraph (a) shall -

(1) be preserved for a period of 10 years from the date of the last entry and made available for inspection in accordance with regulation III.3 (g);

(2) if required by the Director, be forwarded to him within 30 days following the date of suspension, withdrawal or cancellation of a licence pursuant to regulation III.2 (b) and (c).

(g) Every holder shall ensure that -

(1) only persons registered as radiation workers pursuant to paragraph (a) are with his approval potentially exposed to radiation from listed electronic products for which he holds the licence, if the conditions are such that the resulting doses might exceed 3/10 of the annual maximum permissible doses;

(2) any person potentially exposed to radiation from a listed electronic product the licence for which is held by another holder shall notwithstanding the provisions of subparagraph (1) be registered by him as a

(1) deur hom as stralingswerker geregistreer word;

(3) geen stralingswerker homself blootstel of blootgestel word aan ioniserende straling vanaf 'n gelyste elektroniese produk ten opsigte waarvan hy die lisensie hou, sonder toereikende beskerming nie; en

(4) in noodgevalle geen persoon vanaf 'n gelyste elektroniese produk ten opsigte waarvan hy die lisensie hou 'n dosis ontvang wat groter is as die maksimum toelaatbare dosis wat op die oomblik deur die Internasionale Kommissie vir Radiologiese Beskerming vir blootstelling tydens noodgevalle aanbeveel word nie — waarvan besonderhede van die Direkteur verkry kan word.

(h) Elke houer moet -

(1) onmiddellik alle verdagte stralingsvoorvalle wat aan hom gerapporteer word of waarvan hy op 'n ander wyse bewus is, aan die Direkteur rapporteer op Vorm SWA. 1345 wat in Bylae D getoon word;

(2) in samewerking met sy verantwoordelike persoon, indien van toepassing, en sy aangestelde geneesheer die omstandighede waaronder die blootstelling plaasgevind het en die moontlike uitwerking daarvan op die betrokke persoon ondersoek en besluit op welke wyse opgetree moet word.

(i) Elke houer moet hom daarvan vergewis dat enige persoon wat ingevolge paragraaf (a) as stralingswerker registreer -

(1) by registrasie en terwyl hy as sodanig geregistreer is, nie na wete medies ongeskik is nie;

(2) by registrasie nie na wete swanger is nie en dat indien sodanige stralingswerkster, terwyl sy aldus geregistreer is, die houer ingevolge regulasie IV.2(e)(1) meedeel dat sy swanger geraak het, of indien haar swangerskap opsigtelik word, haar registrasie beëindig word;

(3) oor voldoende kennis en ondervinding beskik om die gelyste elektroniese produkte onder sy beheer te hanteer en ook ten volle vertroud is met gesondheids- en veiligheidsmaatreëls en bedryfsinstruksies in verband daarmee.

(j) 'n Stralingswerker wat nie aan die bepalings van paragraaf (i)(3) voldoen nie moet beskou

radiation worker;

(3) no radiation worker exposes himself or is exposed to ionising radiation from a listed electronic product for which he holds the licence without adequate protection; and

(4) in cases of emergency, no person receives a dose from a listed electronic product for which he holds the licence in excess of the maximum permissible dose currently recommended by the International Commission on Radiological Protection for emergency exposure, details of which are obtainable from the Director.

(h) Every holder shall -

(1) immediately report to the Director on Form SWA.1345 shown in Annexure D all suspected radiation occurrences reported or otherwise known to him;

(2) jointly with his responsible person, if applicable, and appointed doctor examine the circumstances of the exposure and the possible effects on a person concerned and decide on the action to be taken.

(i) Every holder shall satisfy himself that any person who registers as radiation worker pursuant to paragraph (a) -

(1) is not known to be medically unfit at the time of registration and while so registered;

(2) is at the time of registration not known to be pregnant and that if such a radiation worker, while so registered, notifies the holder pursuant to regulation IV.2(e) (1) that she has become pregnant, or if her pregnancy becomes evident her registration is terminated;

(3) has adequate knowledge and experience to operate and is fully conversant with health and safety measures and operating instructions applicable to the listed electronic products under his control.

(j) A radiation worker who does not comply with the provisions of paragraph (i) (3) shall be

word as 'n leerling-stralingswerker en mag 'n gelyste elektroniese produk hanteer, of aan straling blootgestel word terwyl hy met sodanige produk werk, slegs onder toesig van 'n stralingswerker wat wel aan die bepalings van paragraaf (i)(3) voldoen.

(k) 'n Persoon se registrasie as stralingswerker moet deur die houer beëindig word indien -

(1) die stralingswerker nie aan die bepalings van regulasie IV.2 voldoen nie;

(2) hy dit nodig ag in die belang van stralingsveiligheidsmaatreëls; of

(3) die Direkteur dit nodig ag in die belang van stralingsveiligheidsmaatreëls.

(l) Indien die Direkteur 'n persoon se voortgesette registrasie as stralingswerker afkeur, moet hy die houer en sodanige persoon skriftelik in kennis stel, met betrekking van -

(1) die rede(s) daarvoor;

(2) die voorwaarde(s), as daar is, waaronder die registrasie nie beëindig hoef te word nie;

(3) die datum van beëindiging, indien van toepassing;

(4) die laaste datum waarop vertoë deur die houer of die stralingswerker ingedien kan word.

III.5 *Bepalings met betrekking tot mediese beheer en die monitering van stralingswerkers*

(a) *Die aangestelde geneesheer:-*

(1) 'n Mediese praktisyn moet in die aansoek om 'n lisensie as aangestelde geneesheer benoem word.

(2) Indien die houer van die lisensie self 'n mediese praktisyn is, kan hy homself benoem.

(3) Indien die benoeming deur die Direkteur goedgekeur word, word die aangestelde geneesheer in die lisensie vermeld en moet hy skriftelik deur die houer as sodanig aangewys word.

(4) Sodanige benoeming moet bepaal dat -

(i) dit geldig bly totdat die benoeming van 'n opvolger deur die Direkteur goedgekeur is;

regarded as a trainee radiation worker and shall operate a listed electronic product or be exposed to radiation whilst working with such product, only under supervision of a radiation worker who complies with the provisions of paragraph (i)(3).

(k) The registration of a person as radiation worker shall be terminated by the holder if -

(1) the radiation worker does not comply with the requirements of regulation IV.2;

(2) he deems it necessary in the interests of radiation safety measures; or

(3) the Director deems it necessary in the interests of radiation safety measures.

(l) If the Director disapproves of the continued registration of a person as radiation worker he shall notify the holder and such person, in writing, stating -

(1) the reason(s) therefor;

(2) the condition(s), if any, subject to which registration need not be terminated;

(3) the date of termination, if applicable;

(4) the latest date on which representations by the holder or the radiation worker may be submitted.

III.5 *Provisions regarding medical control and monitoring of radiation workers*

(a) *Tha appointed medical practitioner* -

(1) A medical practitioner shall be nominated as the appointed medical practitioner in the application for a licence.

(2) If the holder of the licence is a medical practitioner, he may nominate himself.

(3) If the nomination is approved by the Director the appointed medical practitioner shall be named in the licence and receive designation as such, in writing, from the holder.

(4) Such designation shall provide that -

(i) it will remain in effect until the nomination of a successor is approved by the Director;

(ii) die aangestelde geneesheer net aan die houer verantwoordelik is vir die stralings-mediese beheer van stralingswerkers en vir advies aan die houer in verband met die noodsaaklikheid van die opskorting van 'n persoon se registrasie as stralingswerker vanweë stralings-mediese redes;

(iii) die aangestelde geneesheer die inligting wat in die register verlang word, moet invul en onderteken;

(iv) die aangestelde geneesheer vertroud moet wees met die algemene skadelike gevolge van ioniserende straling en ervare moet wees in alle aspekte van die diagnosering van sodanige gevolge.

(5) Meer as een mediese praktisyn kan as aangestelde geneesheer benoem en aangewys word.

(b) *Mediese ondersoeke en toetse van stralingswerkers:-*

(1) Niemand word as stralingswerker geregistreer of herregistreer nie, tensy hy gedurende die 30 dae wat sy registrasie of herregistrasie voorafgaan deur die aangestelde geneesheer ondersoek en by wyse van 'n ondertekende inskrywing in die register medies geskik verklaar is vir registrasie.

(2) Die houer moet reëlings tref dat elke persoon wat as stralingswerker geregistreer is deur die aangestelde geneesheer ondersoek word -

(i) met tussenpose van hoogstens 14 maande solank hy as stralingswerker geregistreer is;

(ii) wanneer 'n stralingsvoorval vermoed word of vasgestel is;

(iii) indien die aangestelde geneesheer dit nodig ag na kennisgewing ingevolge regulasie IV.2(e);

(iv) op sodanige ander tye as wat die houer of die Direkteur dit nodig ag.

Die uitslae van sodanige ondersoeke moet in die register aangeteken word.

(3) In geval van 'n persoon wat deur meer as een houer as stralingswerker geregistreer is, kan die mediese ondersoeke waarna in

(ii) the appointed medical practitioner shall be responsible only to the holder for the radiation medical control of radiation workers and for advice to the holder regarding the necessity for suspension of a person's registration as radiation worker for radiation medical reasons;

(iii) the appointed medical practitioner shall enter under his signature the information required in the register;

(iv) the appointed medical practitioner be conversant with the general harmful effects of ionising radiation and versed in all aspects of diagnosing such effects.

(5) More than one medical practitioner may be nominated and designated as appointed medical practitioner.

(b) *Medical examinations and tests of radiation workers.* -

(1) No person shall be registered or re-registered as radiation worker unless within a period of 30 days immediately preceding his registration or re-registration he has been examined by the appointed medical practitioner and certified medically fit for registration by signed entry in the register.

(2) The holder shall arrange for every person registered as a radiation worker to be examined by the appointed medical practitioner -

(i) at intervals of not more than 14 months during the course of his registration as such;

(ii) when a radiation occurrence is suspected or has been established;

(iii) if the appointed medical practitioner deems it necessary, after notification in terms of regulation IV.2(e);

(iv) at such other times as the holder or the Director may deem necessary.

The results of such examinations shall be recorded in the register.

(3) In the case of a person registered as a radiation worker by more than one holder the medical examinations referred to in

subparagrawe (1) en (2) verwys is slegs deur een van die aangestelde geneeshere van die betrokke houers gedoen word van wie die ander houers dan afskrifte van die uitslae van sodanige ondersoeke moet verkry vir insluiting, ingevolge regulasie III.4(a)(2)(ii) in hulle registers.

(c) *Die monitering van stralingswerkers*

Elke houer moet verseker dat -

(1) sy stralingswerkers gemoniteer word deur 'n Personeelmoniteerdiens wat vooraf deur die Direkteur goedgekeur is en waarna hieronder verwys word as die "Diens". Inligting in verband met die Diens kan van die Direkteur verkry word;

(2) elke stralingswerker, bo en behalwe enige ander moniteertoerusting, gedurende sy werksure altyd 'n filmwapen of ekwivalente moniteerinstrument dra wat deur die Diens verskaf is;

(3) die films van filmwapens deur die Diens vervang word -

(i) met gereelde tussenpose van hoogstens 32 dae; en

(ii) wanneer 'n stralingsvoorval vermoed word of vasgestel is;

(4) die stralingsdosis, wat deur die uitslag van die ondersoek van elke filmwapenverteenwoordig word, deur die Diens aan hom verstrek word, vir insluiting in sy register en die geakkumuleerde dosis van 'n stralingswerker, vir invulling van item (10d) van Vorm SWA.1343 wat in Bylae C getoon word, op aanvraag van die Diens verkry word.

(5) sakdosismeters met volle skaaldefleksies van hoogstens 250 milliroentgen beskikbaar is en gedra word deur stralingswerkers wie se werksomstandighede sodanig is dat -

(i) hulle moontlik aan (heelliggaambestraling) van meer as 20 millirem in een dag blootgestel kan word; of

(ii) die Direkteur dit nodig ag.

(6) stralingswerkers voorsien word van sodanige ander toepaslike moniteertoerusting as wat die Direkteur mag vereis;

(7) sakdosismeters en ander moniteertoe-

subparagraphs (1) and (2) may be done by only one of the appointed medical practitioners of the holders involved, from whom the other holders shall then obtain copies of the results of such examinations for inclusion in their registers pursuant to regulation III.4 (a) (2)(ii).

(c) *Monitoring of radiation workers.* -

Every holder shall ensure that -

(1) his radiation workers be monitored by a Personnel Monitoring Service previously approved by the Director and hereinafter referred to as the "Service". Information regarding the Service may be obtained from the Director;

(2) in addition to any other monitoring equipment every radiation worker always, during his working hours, wears a film badge or equivalent monitoring device supplied by the Service;

(3) film badge films are replaced by the Service -

(i) at regular intervals not exceeding 32 days; and

(ii) whenever a radiation occurrence is suspected or has been established;

(4) the radiation dose represented by the results of the examination of each film badge is furnished by the Service to him for inclusion in his register and the accumulated dose of a radiation worker, for completion of item (10d) of Form SWA.1343 shown in Annexure C, is received on request from the Service;

(5) pocket dosimeters, having full scale deflections of not more than 250 milliroentgens are available and worn by radiation workers whose working conditions are such that -

(i) they are liable to be exposed to whole body irradiation in excess of 20 millirems during any one day; or

(ii) the Director deems it necessary.

(6) radiation workers are provided with such other appropriate monitoring equipment as the Director may require;

(7) pocket dosimeters and other monitoring

rusting met geskikte tussenpose van hoogstens vyf dae gedurende gebruik afgelees word en die aflesings in die register ingeskryf word;

(8) 'n geneeskundige fisikus, of 'n persoon of inrigting wat deur die Direkteur goedgekeur is, sakdosismeters en enige ander moniteertoerusting, deur die Direkteur voorgeskryf yk en toets -

(i) voor dit in gebruik geneem word;

(ii) na herstelwerk daaraan gedoen is;

en dat sodanige yking met gereelde tussenpose van hoogstens 14 maande gedurende gebruik nagegaan word en dat die instrument heryk word indien 'n kontroletoets bewys lewer van 'n afwyking van meer as ongeveer 10 persent;

(9) 'n verslag van die datum en uitslag van enige yking en toets ingevolge subparagraaf (8) wat gesertifiseer is deur die inrigting of persoon daarvoor verantwoordelik, vir 'n tydperk van vyf jaar bewaar word.

III.6 *Bepalings met betrekking tot pasiënte*

Elke houer van 'n lisensie vir 'n gelyste elektroniese produk wat vir mediese doeleindes gebruik word moet verseker dat -

(a) blootstelling van mense aan die nuttige bundel toegelaat word alleenlik vir werklik noodsaaklike mediese doeleindes en nadat vasgestel is dat daar geen vorige radiologiese ondersoek was wat verdere ondersoek onnodig maak nie;

(b) die blootstelling en blootgestelde area van 'n pasiënt beperk word tot die minimum wat nodig is vir suksesvolle diagnose of terapie;

(c) by elke diagnostiese of terapeutiese bestraling alle pogings aangewend word om die geslagsklier-, vel- en integrale dosis te beperk tot die minimum wat met kliniese vereistes verenigbaar is;

(d) toepaslike spesiale voorsorgmaatreëls getref word by die bestraling van persone onder 18 jaar, vroue van reproduktiewe ouderdom en swanger vroue, op wie alleenlik essensiële ondersoeke gedoen mag word;

(e) sy stralingswerkers wat sodanige produk gebruik, benewens die tegniese kennis wat ingevolge regulasie III.4(i)(3) vereis word, ten

equipment are read at suitable intervals not exceeding five days during use and the readings entered in the register;

(8) pocket dosimeters and any other monitoring equipment prescribed by the Director are calibrated and tested by a medical physicist, or a person or institution approved by the Director -

(i) before being brought into use; and

(ii) after repairs;

and that such calibrations are checked at regular intervals not exceeding 14 months while in use and the instrument recalibrated if a check shows evidence of a variation in output of more than approximately 10 per cent;

(9) a record of the date and result of every calibration and check done in terms of subparagraph (8) and certified by the person or institution responsible therefor is kept for a period of five years.

III.6 *Provisions regarding patients*

Every holder of a licence for a listed electronic product used for medical purposes shall ensure that -

(a) exposure of human beings to a useful beam is permitted only for strictly necessary medical purposes and after ascertaining that there has been no previous radiological examination which would make further examination unnecessary;

(b) the exposure of and the exposed area on the patient are limited to the lowest value compatible with successful diagnosis or therapy;

(c) in all diagnostic and therapeutic irradiations every effort is made to keep the gonad, skin and integral dose at the lowest possible values consistent with clinical requirements;

(d) appropriate special precautions are taken in the irradiation of persons under the age of 18 years, women of reproductive age and pregnant women, on whom only essential examinations shall be done;

(e) his radiation workers using such product are, in addition to having the technical knowledge required in terms of regulation III.4 (i) (3), ful-

volle vertroud is met die tans aanvaarde beginsels en tegnieke om stralingsgevare vir pasiënte tot 'n minimum te beperk en dat sodanige werkers wel hierdie tegnieke en enige verbeterings daarvan, waarvan literatuurverwysings van die Direkteur verkry kan word, aanwend;

(f) 'n verslag gehou word van elke pasiënt wat blootgestel word aan straling uit 'n elektroniese produk waarvan hy die lisensiehouer is. Sodanige verslag moet vir 'n tydperk van vyf jaar, vanaf die datum van die laaste inskrywing, bewaar word en moet die inligting bevat wat in Bylae E getoon word;

(g) waar van toepassing, daar by elke elektroniese produk wat vir diagnostiese ondersoeke gelisensieer is, 'n tegniekkaart is wat die tegniekfaktore (buisspanning, buisstroom en blootstellingstyd of die produk van buisstroming en blootstellingstyd) aandui wat van toepassing is op elkeen van die ondersoeke wat binne die bestek van die betrokke lisensie val;

(h) elke elektroniese produk wat vir terapeutiese gebruik gelisensieer is -

(1) deur 'n geneeskundige fisikus of 'n persoon of inrigting deur die Direkteur goedgekeur, geyk is voor dit gebruik word en na herstellings, dat sodanige yking met gereelde tussenpose van hoogstens drie maande tydens die gebruik daarvan nagegaan word en die produk weer geyk word indien die kontroletoets 'n afwyking van meer as ongeveer 5 persent in die lewering toon;

(2) voorsien is van 'n toepaslike stel(le) isodosiskurwes of persentasiedieptedosistabel(le) wat die persentasie dieptedosis aandui vir die verskillende veldgroottes wat gebruik word;

(i) die geneeskundige fisikus of ander persoon na wie in paragraaf (h)(1) verwys word, na voltooiing van elke yking en kontroletoets hom van onderskeidelik 'n gedateerde handtekening of 'n ondertekende en gedateerde toepaslike tydkaart voorsien. Elke tydkaart met handtekeninge en datums soos vereis, moet deur die houer vir 'n tydperk van 12 maande na die datum van die laaste handtekening bewaar word as rekord van sodanige kontroletoetse en yking;

(j) stralingsdosismeters wat gebruik word by yking ingevolge paragraaf (h) (1), geyk en getoets is volgens die prosedures wat vir moniteertoerusting in regulasie III.5(c)(8) en (9) voorgeskryf is.

ly conversant with currently accepted principles and techniques to minimise radiation hazards to patients and that such workers in fact take advantage of such techniques and any improvements thereof, literature references of which are obtainable from the Director;

(f) a record is kept of every patient exposed to radiation from an electronic product for which he is the holder of the licence. Such record shall be preserved for a period of five years from the date of the last entry and include the information shown in Annexure E;

(g) every electronic product licensed for diagnostic examinations bears a technique chart, where appropriate, indicating the technique factors (tube potential, tube current and exposure time or the product of tube current and exposure time) applicable to each of the examinations which falls within the scope of its licence;

(h) every electronic product licensed for therapeutic application is -

(1) calibrated by a medical physicist or a person or institution approved by the Director before being brought into use and after repairs, that such calibrations are checked at regular intervals not exceeding three months in the course of use and the product recalibrated if a check shows evidence of a variation in output of more than approximately 5 per cent;

(2) provided with an appropriate set(s) of isodose curves or percentage depth dose table(s), indicating the percentage depth dose for the different field sizes to be used;

(i) the medical physicist or other person referred to in paragraph (h)(1), on completion of every check and calibration respectively, furnishes him with a dated signature on the existing time chart or an appropriate time chart duly signed and dated. Each time chart with signatures and dates as required, shall be retained by the holder for a period of 12 months from the date of the last signature as record of such checks and calibration;

(j) radiation dosimeters used in the performance of calibrations pursuant to paragraph (h) (1) are calibrated and tested in accordance with procedures prescribed for monitoring equipment in regulation III.5(c)(8) and (9).

III.7 *Bepalings met betrekking tot die blootstelling van mense aan 'n nuttige bundel vir nie-geneeskundige redes*

(a) Tensy toestemming in 'n produklisensie verleen is, mag mense nie vir nie-geneeskundige doeleindes aan 'n nuttige bundel blootgestel word nie, met uitsondering van noodsaaklike ondersoeke in die belang van wetstoepassing deur -

(1) die Departement van Polisie;

(2) 'n persoon wat ingevolge die bepalings van artikel 19 van die Proklamasie op die Beskerming van die Diamantnywerheid, 1939 (Proklamasie 17 van 1939), daartoe gemagtig is om 'n visentasie uit te voer;

in welke gevalle die volgende bepalings geld:

(i) Slegs 'n elektroniese produk wat deur die Direkteur vir medies-diagnostiese ondersoeke gelisensieer is, mag gebruik word.

(ii) Die getekende goedkeuring van die houer om die proses uit te voer, moet verkry word.

(iii) Die proses moet uitgevoer word in ooreenstemming met al die toepaslike bepalings van die regulasies met betrekking tot pasiënte.

(b) Wanneer 'n elektroniese produk gelisensieer is vir die blootstelling van mense aan die nuttige bundel vir nie-geneeskundige roetinedoeleindes, is sodanige blootstelling aan die volgende bepalings onderworpe:

(1) Vir lede van die publiek moet die proses in ooreenstemming met al die toepaslike bepalings van die regulasies met betrekking tot pasiënte uitgevoer word.

(2) Vir 'n spesiale groep of groepe werkers moet die proses in ooreenstemming met al die toepaslike bepalings van die regulasies met betrekking tot stralingswerkers uitgevoer word.

III.7 *Provisions regarding the exposure of human beings to a useful beam for non-medical purposes*

(a) Unless permission is granted in the product licence the exposure of human beings to a useful beam for non-medical purposes shall not be allowed, except in the case of essential examinations undertaken for the purpose of law enforcement -

(1) by the Department of Police;

(2) by a person empowered to carry out a search pursuant to the provisions of section 19 of the Diamond Industry Protection Proclamation, 1939 (Proclamation 17 of 1939) in which cases the following provisions shall apply:

(i) Only an electronic product licensed by the Director for medical diagnostic examinations shall be used.

(ii) The signed approval of the holder shall be obtained for undertaking the process.

(iii) The process shall be carried out in accordance with all the applicable provisions of the regulations regarding patients.

(b) When an electronic product is licensed for the exposure of human beings to the useful beam for routine non-medical purposes such exposure shall be subject to the following provisions:

(1) For members of the public the process shall be carried out in accordance with all the relevant provisions of the regulations regarding patients.

(2) For a special group(s) of workers the process shall be carried out in accordance with all the relevant provisions of the regulations regarding radiation workers.

## IV. VOORWAARDES VIR REGISTRASIE AS STRALINGSWERKERS

IV.1 *Toepaslikheid*

Die bepalings van hierdie regulasie is van toepassing op persone wat as stralingswerkers geregistreer word en op stralingswerkers.

## IV. CONDITIONS FOR REGISTRATION AS RADIATION WORKERS

IV.1 *Applicability*

The provisions of this regulation are applicable to persons being registered as radiation workers and to radiation workers.

IV.2 *Vereistes vir registrasie*

Elke persoon na wie in subregulasie 1 verwys word, moet -

(a) benewens die verslag waarna in regulasie III.4.(d) verwys word aan die houer enige ander tersaaklike inligting verstrek, insluitende -

(1) dié van swangerskap waarvan sy bewus mag wees; en

(2) enige ander stralingswerk waarby hy betrokke mag wees op die datum van registrasie of in enige stadium daarna;

(b) tydens sy registrasie doeltreffende stralingsbeskerming beoefen, in ooreenstemming met tans aanvaarde nasionale en internasionale riglyne betreffende stralingsbeskerming, waarvan besonderhede by die houer verkrygbaar is;

(c) op enige tydstip gedurende sy registrasie as sodanig homself onderwerp aan eksaminering deur 'n persoon of komitee deur die Direkteur daartoe gemagtig, om vas te stel of hy aan die bepalings van regulasie III.4(i)(3) voldoen;

(d) die houer onmiddellik in kennis stel as hy vermoed dat 'n stralingsvoorval plaasgevind het;

(e) die houer onmiddellik in kennis stel as sy vermoed dat -

(1) sy swanger is;

(2) haar gesondheid deur beroepsfaktore nadelig beïnvloed is, beïnvloed word of beïnvloed kan word;

(f) met die houer saamwerk by die toepassing van die regulasies en voldoen aan die vereistes wat op hom van toepassing is.

## V. DATUM WAAROP DIE REGULASIES VAN KRAG WORD

V.1 *Datum*

Hierdie regulasies word aangehaal as die Regulasies betreffende die Beheer van Elektroniese Produkte, 1974, en tree in werking op 'n datum wat die Uitvoerende Komitee bepaal en wat by kennisgewing in die *Offisiële Koerant* bekend gemaak word.

IV.2 *Registration requirements*

Every person referred to in subregulation 1 shall -

(a) in addition to the record referred to in regulation III.4 (d) furnish the holder with any other relevant information including -

(1) that of pregnancy she may be aware of; and

(2) any other radiation work that he may be involved in at the date of registration or at any time thereafter.

(b) in the course of his registration, practise effective radiation protection in accordance with currently recognised national and international radiation protection guidelines, details of which are obtainable from the holder;

(c) at any time during his registration as such submit himself for examination by a person or committee authorised thereto by the Director in order to determine whether he complies with the provisions of regulation III.4 (i) (3);

(d) notify the holder immediately he suspects that a radiation occurrence has taken place;

(e) notify the holder immediately she suspects that -

(1) she is pregnant;

(2) her health has been, is being or might be adversely affected by occupational factors;

(f) co-operate with the holder in the application of the regulations and comply with requirements which apply to him.

## V. DATE ON WHICH THE REGULATIONS WILL COME INTO FORCE

V.1 *Date*

These regulations shall be cited as the Regulations concerning the Control of Electronic Products, and they shall come into operation on a date determined by the Executive Committee and made known by notice in the *Official Gazette.*

SWA.1336

BYLAE A

ADMINISTRASIE VAN SUIDWES-AFRIKA

AANSOEK OM LISENSIE: GELYSTE ELEKTRONIESE PRODUKTE

L.W.: Lees asseblief hierdie instruksies sorgvuldig voordat u die betrokke vorms invul.

1. Vorm SWA.1336 moet vergesel gaan van een of meer van die volgende vorms, afhangende van u besondere behoeftes

   (a) Vorm SWA.1337 vir Diagnostiese X-straaleenhede.

   (b) Vorm SWA.1338 vir Terapeutiese X-straaleenhede.

   (c) Vorm SWA.1339 vir X-straaleenhede vir nywerheids-, navorsings-, opvoedkundige of ander nie-geneeskundige doeleindes gebruik.

   (d) Vorm SWA.1340 vir versnellers en neutrongenerators.

   (e) Vorm SWA.1341 vir perseellisensies.

2. Sommige vrae kan beantwoord word deur slegs "X" in die betrokke blokkie te maak.

3. Alle aansoeke moet gerig word aan die Direkteur van Gesondheidsdienste, Privaatsak 13186, Windhoek.

A. SOORT AANSOEK

☐ Produklisensie ☐ Perseellisensie

B. BESONDERHEDE VAN APPLIKANT

Familienaam .....
Volle voorname .....
Persoonsnommer/Identiteitsnommer .....
Posisie beklee in instansie waarna in C verwys word .....
Akademiese kwalifikasies (dui inrigting aan waar behaal) .....
.....
Ander ondervinding/opleiding met betrekking tot stralingsbeskerming .....
.....
.....
.....

C. INSTANSIE

Naam van instansie .....
Posadres .....
.....

Klassifikasie van instansie

☐ Sentrale regering
☐ Statutêre liggaam
☐ Private praktyk
☐ Ander (spesifiseer) .....
.....

☐ Administrasie van Suidwes-Afrika
☐ Publieke maatskappy Bpk.
☐ Vennootskap

☐ Plaaslike owerheid
☐ Private maatskappy (Edms.) Bpk.

D. PERSONEELMONITEERDIENS

Geregistreerde naam .....
.....

SWA 1336

ANNEXURE A

ADMINISTRATION OF SOUTH WEST AFRICA

APPLICATION FOR LICENCE: LISTED ELECTRONIC PRODUCTS.

N.B. — Please read these instructions carefully before completing the forms concerned.

1. Form SWA.1336 must be accompanied by any one or more of the following forms depending on your particular requirements:

   (a) Form SWA.1337 for Diagnostic X-ray units.

   (b) Form SWA.1338 for Therapeutic X-ray units.

   (c) Form SWA.1339 for X-ray units used for Industrial, Research, Educational or other Non-medical purposes.

   (d) Form SWA.1340 for Accelerators and Neutron Generators.

   (e) Form SWA.1341 for Premises licences.

2. Certain questions need only be answered by placing an "X" in the appropriate box.

3. Applications must be directed to the Director of Health Services, Private Bag 13186, Windhoek.

A. TYPE OF APPLICATION

☐ Product licence. ☐ Premises licence.

B. PARTICULARS OF APPLICANT

Surname .....
Full first names .....
Identity No. .....
Position held in establishment referred to in C .....
Academic qualifications (indicate institution where obtained) .....
.....
Other experience/training regarding radiation protection .....
.....

C. ESTABLISHMENT

Name of establishment .....
postal address .....
.....
Classification of establishment

☐ Central Government ☐ Administration of South West Africa ☐ Local Authority.
☐ Statutory Body ☐ Public Co. Ltd. ☐ Private Co. (Pty) Ltd.
☐ Private Practice. ☐ Partnership.
☐ Other (specify) .....
.....

D. PERSONNEL MONITORING SERVICE

Registered name .....
.....

E. BENOEMDE VERANTWOORDELIKE PERSONE

| | 1 | 2 | 3 |
|---|---|---|---|
| Familienaam | | | |
| Voorletters | | | |
| Identiteitsnommer | | | |
| Posadres | | | |
| Akademiese kwalifikasies (dui inrigting aan waar behaal) | | | |
| Ander ondervinding opleiding met betrekking tot stralingsbeskerming | | | |

Hierby verklaar ek dat ek die toepaslike regulasies gelees het en in staat is om te voldoen aan die bepalings van regulasie III 3(d), (e) en (f) en ek aanvaar hierby my benoeming

| HANDTEKENING | HANDTEKENING | HANDTEKENING |
|---|---|---|
| Datum: | Datum: | Datum: |

F. BENOEMDE AANGESTELDE GENEESHERE

| | 1 | 2 | 3 |
|---|---|---|---|
| Famielienaam | | | |
| Voorletters | | | |
| Posadres | | | |

Hierby verklaar ek dat ek die toepaslike regulasies gelees het en dat ek na my beste wete in staat is om aan die bepalings van regulasie III 5(a), (3) en (4) te voldoen en ek aanvaar hierby my benoeming.

| HANDTEKENING | HANDTEKENING | HANDTEKENING |
|---|---|---|
| Datum: | Datum: | Datum: |

9. VERKLARING DEUR APPLIKANT

Ek verklaar hierby dat die voorgaande inligting waar en korrek is, en dat ek na my beste wete nie bewus is van enige ander inligting wat die uitreiking van die aangevraagde lisensie kan beïnvloed nie.

Datum:_____ Handtekening:_____

SWA 1337

ADMINISTRASIE VAN SUIDWES-AFRIKA
AANSOEK OM LISENSIE: MEDIES-DIAGNOSTIESE X-STRAALEENHEID

L.W. — Hierdie vorm, indien van toepassing, moet vorm SWA.1336 vergesel.

E. NOMINATED RESPONSIBLE PERSONS

| | 1 | 2 | 3 |
|---|---|---|---|
| Surname ..... | | | |
| Initials ..... | | | |
| Identity No. ..... | | | |
| Postal address ..... | | | |
| Academic qualifications (indicate institution where obtained) | | | |
| Other experience/training regarding radiation protection | | | |
| | | | |
| | | | |
| | | | |

I hereby declare that I have read the relevant regulations and that I am able to comply with the provisions of regulation III, 3(d), (e) and (f) and hereby accept my nomination.

| | | |
|---|---|---|
| SIGNATURE | SIGNATURE | SIGNATURE |
| Date. _____ | Date. _____ | Date. _____ |

F. NOMINATED APPOINTED MEDICAL PRACTITIONER

| | 1 | 2 | |
|---|---|---|---|
| Surname ..... | | | |
| Initials ..... | | | |
| Postal address ..... | | | |
| | | | |
| | | | |

I hereby declare that I have read the relevant regulations and that to the best of my knowledge I am able to comply with the provisions of regulation III, 5(a), (3) and (4) and hereby accept my nomination.

| | | |
|---|---|---|
| SIGNATURE | SIGNATURE | SIGNATURE |
| Date. _____ | Date. _____ | Date. _____ |

9. DECLARATION BY APPLICANT

I hereby declare that the aforementioned information is true and correct and that there is to the best of my knowledge no other relevant information that I am aware of that could influence the issue of the licence applied for.

Date:. _____ SIGNATURE _____

ADMINISTRATION OF SOUTH WEST AFRICA

SWA.1337

APPLICATION FOR LICENCE: MEDICAL DIAGNOSTIC X-RAY UNIT

N.B. – This form, if applicable, must be attached to Form SWA.1336.

| Slegs vir kantoorgebruik |
|---|
| lisensienr. |

Naam en adres van applikant:

A. IDENTIFIKASIE VAN PRODUK

Naam van vervaardiger .....

Model .....Beheerpaneelreeksnommer .....

Benaderde datum van vervaardiging .....Land van vervaardiging .....

B. TIPE EENHEID

Installasie .....Mobiel ☐ Vas ☐

| | Enkelfase | | | | Driefase | | | | Kapasitor-energieberging |
|---|---|---|---|---|---|---|---|---|---|
| Selfgelyk-rigting | Halfgolf-gelykrigting | Volgolf-gelykrigting | of | Sespuls | Twaalfpuls | Konstante potensiaal | of | |
| | | | | | | | | | |

| Radiografies | | Fluoroskopies | | Radiografies en fluoroskopies gekombineerd | | Foto-fluorografies: Filmgrootte | | |
|---|---|---|---|---|---|---|---|---|
| | of | | of | | of | 35 mm | 70 mm | 100 mm |
| | | | | | | | | |

Vir radiografiese fasiliteit of gekombineerd, dui aan of die eenheid toegerus vir:

☐ Bucky-radiografie ☐ Reeksradiografie ☐ Tomografie

Vir fluoroskopiese fasiliteit alleen of gekombineerd, dui aan of die eenheid toegerus is met:

(a) Fluoressensieskerm of

(b) met -

| | | Optiese kyker | Televisie | Kinemakamera | | | |
|---|---|---|---|---|---|---|---|
| | 100 mm | | | 16 mm | 35 mm | Kontinue werking | Gepulseerde werking |
| | | | | | | | |

C. TEGNIEKFAKTORE

LIMIETWAARDE WAARTEEN BUIS FUNKSIONEER VOLGENS TEGNIEKFAKTORE

| Vir kapasitor-energiebergingsapparaat | | | |
|---|---|---|---|
| Piek-buispotensiaal | Maksimum hoeveelheid lading | of | Kondensatorkapasiteit |
| .....kV | .... Coulombs | | .....F |

| Vir gepulseerde apparaat | |
|---|---|
| Piek-buispotensiaal | Maksimum aantal X-straalpulse |
| .....kV | ..... |

| For office use only |
|---|
| Licence No.: |

Name and address of applicant:

.....
.....
.....
.....

A. IDENTIFICATION OF PRODUCT

Name of manufacturer .....

Model ..... Control panel serial No. .....

Approximate date of manufacture ..... Country of manufacture .....

B. TYPE OF UNIT

Installation ..... Mobile ☐ Fixed ☐

| | Single phase | |
|---|---|---|
| Self rectified | Half wave rectified | Full wave rectified |
| | | |

or

| | Three phase | |
|---|---|---|
| Six pulse | Twelve pulse | Constant potential |
| | | |

or

| Capacitor energy storage |
|---|
| |

| Radiographic | or | Fluoroscopic |
|---|---|---|
| | | |

or

| Radiographic and fluoroscopic combined |
|---|
| |

or

| photo-fluorographic: Film size | | |
|---|---|---|
| 35 mm | 70 mm | 100 mm |
| | | |

For radiographic facility alone or combined indicate whether unit is equipped for:

☐ Bucky radiography ☐ Serial radiography ☐ Tomography.

For fluoroscopic facility alone or combined indicate whether unit is equipped with:

(a)

| Fluorescent screen |
|---|
| |

or

(b)

| Image intensifier |
|---|
| |

with -

| Camera for spot filming | | Optical viewer | Television | Cine camera | | | |
|---|---|---|---|---|---|---|---|
| 70 mm | 100 mm | | | 16 mm | 35 mm | Continuous operation | Pulsed operation |
| | | | | | | | |

Specify maximum frame speed:. . . . . frames/sec.

C. TECHNIQUE FACTORS

RATED LIMITS OF OPERATION OF TUBE IN TERMS OF TECHNIQUE FACTORS

| For capacitor energy storage equipment | | |
|---|---|---|
| Peak tube potential | Maximum quantity of charge or | Condensor capacity |
| . . . . . .kV | . . . . . .Coulombs | . . . . . .F |

| For pulsed equipment | |
|---|---|
| Peak tube potential | Maximum number of X-ray pulses |
| | . . . . . |

| Piek-buispotensiaal | Maksimum buistroom | en | Maksimum Beligtingstyd | of | Maksimum produk van Buisstroom en beligtingstyd |
|---|---|---|---|---|---|
| . . . . . .kV | . . . . . .mA | | . . . . . .Sek | | . . . . . .mAs |

D. ANDER BEDRYFSFAKTORE

Filtrasie:

| Inherente filter. . . mm Al ekw. | Bygevoegde filter. . . . mm Al ekw. | Totale filter. . . mm Al ekw. |
|---|---|---|

Is toestel ingerig vir outomatiese beligting? — — — — — — — — — — — — — Ja ☐ Nee ☐

Indien wel, dui aan. . . . . .

| Fototydskakelaar | of | Ionisasietipe |
|---|---|---|
| | | |

Inligting in verband met X-straalbuis:

| Stilstaande anode | of | Roterende anode | lugverkoel | of | Olieverkoel |
|---|---|---|---|---|---|
| | | | | | |

| Roosterbeheer | of | Nie Roosterbeheer | Skerp fokus | en/of | Breë fokus |
|---|---|---|---|---|---|
| | | | | | |

Tipe kollimasie. . . . .

| Keëls | Enkelvoudige ligdiafragma | Multibladlig-diafragma |
|---|---|---|
| | | |

Is eenheid toegerus met 'n stelsel wat die dosis aan die pasiënt kan meet? — — — — — — — — ja ☐ Nee ☐

Rigtings waarin beligting kan geskied:

| Een rigting | Twee rigtings | Meer rigtings |
|---|---|---|
| | | |

(Dui rigtings aan op diagram van perseel indien moontlik)

| For other equipment | | | |
|---|---|---|---|
| Peak tube potential | Maximum tube current and | Maximum exposure time or | Maximum product of tube current and exposure time |
| . . . . . .kV | . . . . . .mA | . . . . . .Sec | . . . . . .mAs |

D. OTHER OPERATIONAL FACTORS

FILTRATION:

| Inherent filter. . . .mm Al equ | Added filter. . . . mm Al equ | Total filter. . . . mmAl equ |
|---|---|---|

Is unit equipped with automatic exposure device? — — — — — — — — — — — — Yes ☐ No ☐

If yes, indicate whether

| phototimer | or | Ionisation type |
|---|---|---|
| | | |

Information regarding X-ray tube:

| Stationary anode | or | Rotating anode | Air cooled | or | Oil cooled |
|---|---|---|---|---|---|
| | | | | | |
| **Grid controlled** | **or** | **Not grid controlled** | **Fine focus** | **and/or** | **Broad focus** |
| | | | | | |

Type of collimation. . . . .

| Cones | Single-leaf collimation | Multi-leaf collimation |
|---|---|---|
| | | |

Is unit equipped with a system for measuring the dose to the patient? — — — — — — — — Yes ☐ No ☐

Directions in which exposure can be made:

| One direction | Two directions | More directions |
|---|---|---|
| | | |

(Indicate the directions on the drawing of the premises, if possible)

E. BLOOTSTELLINGS VAN MENSE VIR MEDIESE DOELEINDES

| | Geraamde aantal ondersoeke per week | Beskryf ondersoek kortliks |
|---|---|---|
| Radiografie van die: Kop ..... | | ..... |
| Werwelkolom ..... | | ..... |
| Bekken ..... | | ..... |
| Ekstremiteite ..... | | ..... |
| Radiografiese ondersoek van organe: Met kontrasmedia ..... | | ..... |
| Sonder kontrasmedia | | ..... |
| Tandheelkundige radiografie | | ..... |
| Fluoroskopiese ondersoeke | | ..... |
| Spesiale ondersoeke | | ..... |
| Ander ondersoeke | | ..... |

F. BLOOTSTELLING VAN MENSE VIR NIE-MEDIESE DOELEINDES

(a) Rede(s) waarom sodanige blootstelling noodsaaklik geag word:

.....
.....
.....
.....
.....
.....

(b) Ek verklaar hierby dat ek die aangeleentheid ondersoek het en dat daar na my beste wete tans geen aanvaarde alternatiewe metode(s), behalwe die stralingsproses, is waarvolgens die verlangde inligting verkry kan word nie.

.....
HANDTEKENING VAN APPLIKANT

E. EXPOSURE OF PERSONS FOR MEDICAL PURPOSES

| | Estimated number examinations per week | Briefly specify examination |
|---|---|---|
| Radiography of the: Head ..... | | ..... |
| Spine ..... | | ..... |
| Pelvis ..... | | ..... |
| Extremities ..... | | ..... |
| Radiographic examinations of organs: with contrast media ..... | | ..... |
| without contrast media ..... | | ..... |
| Dental radiography ..... | | ..... |
| Fluoroscopic examinations ... | | ..... |
| Special examinations ..... | | ..... |
| Other examinations ..... | | ..... |

F. EXPOSURE OF PERSONS FOR NON-MEDICAL PURPOSES

(a) Reason(s) why such exposures are considered necessary:

.....
.....
.....
.....
.....
.....

(b) I hereby certify that I have investigated the matter and there is to the best of my knowledge no currently accepted alternative method(s) to obtain the required information other than the radiation process.

.....

SIGNATURE OF APPLICANT

Indien 'n alternatiewe prosedure bestaan, verstrek redes waarom dit nie gebruik word nie .....

Persone wat blootgestel sal word:

| | Maksimum aantal persone blootgestel per jaar | Maksimum aantal blootstellings wat dieselfde persoon waarskynlik per jaar sal ontvang |
|---|---|---|
| (a) Spesiale groep(s)werkers ..... | ..... | ..... |
| (b) Lede van die publiek ..... | ..... | ..... |

Beskryf die tipe ondersoek(e) .....

Geraamde maksimum stralingsdosisse wat elkeen van die volgende gedurende sodanige blootstellings sal ontvang:

| | | | |
|---|---|---|---|
| Hele liggaam. . . . . | . . . . . | Ooglens. . . . . | . . . . . |
| Geslagskliere. . . . | . . . . . | Vel. . . . . | . . . . . |
| Bloedvormende organe. . | . . . . . | Ander interne organe | . . . . . |

Moniteertoerusting wat gebruik sal word om die stralingsdosis tydens sodanige blootstelling te meet .....

G. VERKLARING DEUR APPLIKANT

Ek verklaar dat die voorgaande inligting na my beste wete waar en juis is.

Datum. . . . . .

.....

HANDTEKENING VAN APPLIKANT

---

ADMINISTRASIE VAN SUIDWES-AFRIKA

SWA.1338

AANSOEK OM 'N LISENSIE: MEDIES-TERAPEUTIESE X-STRAALEENHEID

L.W. — Hierdie vorm indien van toepassing moet vorm SWA.1336 vergesel.

| Slegs vir kantoor gebruik |
|---|
| Lisensienommer |

Naam en adres van applikant:

.....

A. IDENTIFIKASIE VAN PRODUK

Naam van vervaardiger .....

Model ..... Beheerpaneelreeksnommer .....

Benaderde datum van vervaardiging .....Land van vervaardiging .....

B. TIPE EENHEID

Installasie .....Mobiel ☐ Vas ☐

Veld .....Pendulum ☐ Stilstaande ☐

If an alternative procedure does exist provide reasons for not using it .....

Persons to be exposed:

| | Maximum number of persons to be exposed per annum | Maximum number of exposures that the same person is likely to receive per annum |
|---|---|---|
| (a) Special group(s) of workers. . . . . | . . . . . | . . . . . |
| (b) Members of public. . . . . | . . . . . | . . . . . |

Describe the type of examination(s) .....

Estimate the maximum radiation doses received by each of the following during exposure to the useful beam:

| | | | |
|---|---|---|---|
| Whole body. . . . . | . . . . . | Eye-lens. . . . . | . . . . . |
| Gonads. . . . . | . . . . . | Skin. . . . . | . . . . . |
| Blood-forming organs. . . | . . . . . | Other internal organs. . . | . . . . . |

Monitoring equipment to be used for measuring the radiation dose received by persons during such exposure .....

G. DECLARATION BY APPLICANT

I declare that the aforementioned information is true and correct to the best of my knowledge.

Date:. . . . . .

. . . . . .

SIGNATURE OF APPLICANT

---

ADMINISTRATION OF SOUTH WEST AFRICA

SWA. 1338

APPLICATION FOR LICENCE: MEDICAL THERAPEUTIC X-RAY UNIT

N.B. — This form, if applicable, must be attached to Form SWA.1336.

| For office use only |
|---|
| Licence No. |

Name and address of applicant:

. . . . . .

. . . . . .

. . . . . .

. . . . . .

A. IDENTIFICATION OF PRODUCT

Name of manufacturer .....

Model ..... Control panel serial No .....

Approximate date of manufacture ..... Country of manufacture .....

B. TYPE OF UNIT

Installation ..... Mobile ☐ Fixed ☐

Field ..... Pendulum ☐ Stationary ☐

Gelykrigting. . . . . .

| Selfgelykrigting | Halfgolfgelyk-rigting | Volgolfgelyk-rigting | Konstante potensiaal |
|---|---|---|---|
| | | | |

Tipe terapie . . . . . Diep X-straal ☐ Kontak ☐

C. TEGNIEKFAKTORE

Limietwaardes waarteen die buis kan funksioneer volgens tegniekfaktore. . . . . .

| Piek-buispotensiaal | Maksimum buisstroom |
|---|---|
| . . . . . .kV | . . . . . .mA |

Tipe kollimasie. . . . . .

| Ligdiafragma | Toedieners |
|---|---|
| | |

Is eenheid toegerus met -

| Ingeboude monitorstelsel | Filter-veiligheid-skakelaar? | Stabilisasie van toevoerspanning? | Stabilisasie van buis-spanning? | Stabilisasie van buis-stroom? |
|---|---|---|---|---|
| | | | | |

Indien gestabiliseer, dui aan die persentasie fluktuasie in opbrengs . . . . . .

D. BEOOGDE GEBRUIK VAN EENHEID

| Tipe tera-pie | Gemiddelde aantal be-handelings per week | Verskillende kombinasies van buisspanning, buisstroom filter en FVA-waardes wat gebruik word | | | | Ooreenstem-mende kwali-teit van straling volgens HVD | Ooreenstem-mende opbrengs in lug |
|---|---|---|---|---|---|---|---|
| | | kV | mA | Filter | FVA | | |
| Opper-vlak-X-straal-terapie | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . |
| | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . |
| | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . |
| Diep X-straal-terapie | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . |
| | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . |
| | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . | . . . . . |

E. VERKLARING DEUR APPLIKANT

Ek verklaar hierby dat die voorgaande inligting na my beste wete waar en korrek is.

Datum:. . . . . .

. . . . . .

HANDTEKENING VAN APPLIKANT.

Rectification .....

| Self rectified | Half wave rectified | Full wave rectified | Constant potential |
|---|---|---|---|
| | | | |

Type of thereapy ..... Deep X-ray ☐ Contact ☐

C. TECHNIQUE FACTORS

Rated limits of operation of tube in terms of technique factors:

| Peak tube potential | Maximum tube current |
|---|---|
| .....kV | .....mA |

Type of collimation. .....

| Light-beam diaphragm | Applicators |
|---|---|
| | |

Is unit equipped with -

| built-in monitoring system? | Filter safety switch? | mains voltage stabilization? | tube voltage stabilization? | tube current stabilization? |
|---|---|---|---|---|
| | | | | |

If stabilized specify percentage fluctuation in output .....

D. INTENDED USES OF UNIT

| Type of therapy | Average number of treatments per week | Different combinations of tube voltage, tube current, filter and FSD values used | | | | Related quality of radiation in terms of HVL | Related output in air |
|---|---|---|---|---|---|---|---|
| | | kV | mA | Filter | FSD | | |
| Superficial X-ray therapy | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Deep X-ray therapy | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

E. DECLARATION BY APPLICANT

I declare that the aforementioned information is true and correct to the best of my knowledge.

Date:. .....

.....

SIGNATURE OF APPLICANT

SWA.1339

ADMINISTRASIE VAN SUIDWES-AFRIKA

AANSOEK OM LISENSIE: X-STRAALEENHEDE WAT GEBRUIK WORD VIR INDUSTRIËLE-NAVORSINGS-, OPLEIDINGS- OF ENIGE ANDER NIE-MEDIESE DOELEINDES

L.W.: Hierdie vorm moet, indien van toepassing vorm SWA. 1336 vergesel

| Slegs vir kantoorgebruik |
|---|
| Lisensienommer: |

Naam en adres van applikant:

.....
.....
.....
.....

A. IDENTIFIKASIE VAN PRODUK

Naam van vervaardiger .....
Model ..... Beheerpaneelreeksnommer .....
Benaderde datum van vervaardiging .....Land van vervaardiging .....

B. TIPE EENHEID

Installasie .....Mobiel ☐ Vas ☐

| Enkelfase | | | | of | Driefase | | |
|---|---|---|---|---|---|---|---|
| Selfgelyk-rigting | Halfgolf-gelykrigting | Volgolf-gelykrigting | Konstante potensiaal | | Sespuls | Twaalfpuls | Konstante potensiaal |
| | | | | | | | |

C. TEGNIEKFAKTORE

Limietwaardes waarteen die buis kan funksioneer volgens tegniekfaktore:

| Vir kapasitor-energiebergingsapparaat | | | |
|---|---|---|---|
| Piek-buispotensiaal | Maksimum Hoeveelheid lading | of | Kondensator-kapasiteit |
| .....kV | ....coulombs | | ....F |

| Vir gepulseerde apparaat | |
|---|---|
| Piek-buispotensiaal | Maksimum aantal X-straalpulse |
| .....kV | ..... |

| Vir ander toerusting | | | | |
|---|---|---|---|---|
| Piek-buispotensiaal | Maksimum buisstroom | en | Maksimum beligtingstyd | of Maksimum produk van buisstroom en beligting |
| .....kV | .....mA | | .....sek | .....mAs |

D. ANDER BEDRYFSFAKTORE

Tipe X-straalbuis .....
Naam van vervaardiger .....
Kode of reeksnommer ..... Skyfmateriaal .....
Hoek van bundel ..... Aantal bundeluitgange .....
Beskryf die buisomhulsel .....
.....
.....
.....
Gee besonderhede in verband met filtrasie .....
.....
.....
.....

SWA.1339

ADMINISTRATION OF SOUTH WEST AFRICA

APPLICATION FOR LICENCE: X-RAY UNITS USED FOR INDUSTRIAL, RESEARCH, EDUCATION OR OTHER NON-MEDICAL PURPOSES

N.B. – This form, if applicable, must be attached to Form SWA.1336

| For office use only |
|---|
| Licence No.: |

Name and address of applicant:

.....
.....
.....
.....

A. IDENTIFICATION OF PRODUCT

Name of manufacturer .....
Model ..... Control panel serial No. .....
Approximate date of manufacture ..... Country of manufacture .....

B. TYPE OF UNIT

Installation ..... Mobile ☐ Fixed ☐

| Single phase | | | | or | Three phase | | |
|---|---|---|---|---|---|---|---|
| Self rectified | Half wave rectified | Full wave rectified | Constant potential | | Six pulse | Twelve pulse | Constant potential |
| | | | | | | | |

C. TECHNIQUE FACTORS

Rated limits of operation of tube in terms of technique factors:

| For capacitor energy storage equipment | | | | For pulsed equipment | |
|---|---|---|---|---|---|
| Peak tube potential | Maximum quantity of charge | or | Condensor capacity | Peak tube potential | Maximum number of X-ray pulses |
| .....kV | .....coulombs | | .....F | .....kV | ..... |

| For other equipment | | | | | |
|---|---|---|---|---|---|
| Peak tube potential | Maximum tube current | and | Maximum exposure time | or | Maximum product of tube current and exposure time |
| .....kV | .....mA | | .....Sec. | | .....mAs |

D. OTHER OPERATIONAL FACTORS

Type of X-ray tube .....
Name of manufacturer .....
Code or serial No. ..... Target material .....
Angle of beam ..... Number of beam ports .....
Describe the tube housing utilized .....
.....
.....
.....
State particulars regarding filtration .....
.....
.....
.....

Dui aan die tipe kollimasie .....

.....

.....

.....

Noem kortliks enige apparaat wat gebruik word om die bundel te rig .....

.....

.....

.....

.....

E. BEOOGDE GEBRUIK VAN EENHEID (SPESIFISEER)

Industrieel .....

.....

.....

.....

Navorsing .....

.....

.....

Opleiding .....

.....

.....

Ander .....

.....

.....

F. VERKLARING VAN APPLIKANT

Ek verklaar dat die voorgaande inligting na my beste wete waar en korrek is.

Datum:. .....

.....

HANDTEKENING VAN APPLIKANT

---

ADMINISTRASIE VAN SUIDWES-AFRIKA

SWA 1340

AANSOEK OM LISENSIE: VERSNELLER OF NEUTRON-GENERATOR

L.W. - Hierdie vorm moet, indien van toepassing,
Vorm SWA.1336 vergesel

| Slegs vir kantoorgebruik |
|---|
| Lisensienommer: |

Naam en adres van applikant:

.....

.....

.....

.....

A. IDENTIFIKASIE VAN PRODUK

Elektronversneller ☐ Swaardeeltjieversneller ☐ Neutrongenerator ☐

Tipe versneller .....

Naam van vervaardiger .....

Model ..... Beheerpaneel-reeksnommer .....

Benaderde datum van vervaardiging ..... Land van vervaardiging .....

Indicate type of collimation .....

Briefly mention any apparatus utilized in beam alignment .....

E. INTENDED USES OF UNITS (specify):

Industrial .....

Research .....

Educational .....

Other .....

F. DECLARATION BY APPLICANT

I declare that the aforementioned information is true and correct to the best of my knowledge.

Date:. . . . . .

.....

SIGNATURE OF APPLICANT

---

ADMINISTRATION OF SOUTH WEST AFRICA

SWA.1340

APPLICATION FOR LICENCE: ACCELERATOR OR NEUTRON GENERATOR

N.B. – This form, if applicable, must be attached to Form SWA.1336

| For office use only |
| --- |
| Licence No.: |

Name and address of applicant:

.....

.....

.....

.....

A. IDENTIFICATION OF PRODUCT

Electron accelerator ☐ Heavy particle accelerator ☐ Neutron generator ☐

Type of accelerator .....

Name of manufacturer .....

Model ..... Control panel serial No. .....

Approximate date of manufacture ..... Country of manufacture .....

B. BEDRYFSFAKTORE

Hierdie deel moet vir *alle* versnellers en neutrongenerators ingevul word.

| Primêre deeltjie(s) wat versnel word | Energie omvang | Piek-gemiddelde bundelstroom | Skyfmateriaal | Skyfdikte |
|---|---|---|---|---|
| (a) ..... | ..... | ..... | ..... | ..... |
| (b) ..... | ..... | ..... | ..... | ..... |
| (c) ..... | ..... | ..... | ..... | ..... |
| (d) ..... | ..... | ..... | ..... | ..... |

Hierdie deel moet slegs vir *mediese* versnellers en neutrongenerators ingevul word.

| Energiewaardes van primêre bundel wat vir radioterapie gebruik word | Ooreenstemmende gegewe dosistempo's van primêre bundel vir (10x10) cm-veldgrootte | Sekondêre straling wat geproduseer word | Energiewaardes van sekondêre bundel wat vir radioterapie gebruik word | Ooreenstemmende gegewe dosistempo's van sekondêre bundel vir (10x10) cm-veldgrootte | Neutronvloed op gegewe afstand vanaf skyf |
|---|---|---|---|---|---|
| (a) ..... | | | | | |
| (b) ..... | | | | | |
| (c) ..... | | | | | |
| (d) ..... | | | | | |

Aantal bundeluitgange .....

Beskryf kortliks die tipe kollinasie .....

.....

.....

.....

C. BEOOGDE GEBRUIKE VAN EENHEID (SPESIFISEER)

Medies .....

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Navorsing .....

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.....

Industrieel .....

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.....

Ander (spesifiseer) .....

.....

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.....

.....

B. OPERATIONAL FACTORS

This section must be completed for all accelerators and neutron generators

| Primary particle(s) accelerated | Energy range | Peak average beam current | Target material | Target thickness |
|---|---|---|---|---|
| (a) ..... | ..... | ..... | ..... | ..... |
| (b) ..... | ..... | ..... | ..... | ..... |
| (c) ..... | ..... | ..... | ..... | ..... |
| (d) ..... | ..... | ..... | ..... | ..... |

This section to be completed for medical accelerators and neutron generators only.

| Energy values of primary beam used for radiotherapy | Related given dose rates of primary beam for (10 x 10) cm field size | Secondary radiation produced | Energy values of secondary beam used for radiotherapy | Related given dose rates of secondary beam for (10x10) cm field size | Neutron flux at specified distance from target |
|---|---|---|---|---|---|
| (a) ..... | ..... | ..... | ..... | ..... | ..... |
| (b) ..... | ..... | ..... | ..... | ..... | ..... |
| (c) ..... | ..... | ..... | ..... | ..... | ..... |
| (d) ..... | ..... | ..... | ..... | ..... | ..... |

Number of beam ports .....

Briefly describe type of collimation .....

.....

.....

.....

C. INTENDED USES OF UNIT (specify)

Medical .....

.....

.....

.....

.....

.....

.....

.....

.....

Research .....

.....

.....

.....

.....

.....

.....

.....

.....

Industrial .....

.....

.....

.....

.....

.....

.....

.....

Other (specify) .....

.....

.....

.....

.....

.....

.....

.....

D. VERKLARING DEUR APPLIKANT

Ek verklaar hiermee dat die voorgaande inligting na my beste wete waar en korrek is.

Datum:. . . . . .

. . . . . .

HANDTEKENING VAN APPLIKANT

---

ADMINISTRASIE VAN SUIDWES-AFRIKA

SWA. 1341

AANSOEK OM PERSEELLISENSIE

L.W. — Hierdie vorm moet, indien van toepassing, Vorm SWA.1336 vergesel.

| Slegs vir Kantoorgebruik |
|---|
| Lisensie No. |

Naam en adres van applikant:

. . . . . .

. . . . . .

. . . . . .

Indien 'n produklisensie reeds uitgereik is vir die elektroniese produk waarvoor 'n perseellisensie benodig word meld:

Produklisensienommer . . . . . Datum waarop uitgereik . . . . . .

A. IDENTIFIKASIE VAN PERSEEL

| Terrein | Gebou | Ander struktuur | Voertuig | Trein | Skip | Vliegtuig | Ander voertuig |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| Erfnommer | Plotnommer | Voertuigregistrasienommer |
|---|---|---|
| | | |

Adres van perseel . . . . . .

. . . . . .

. . . . . .

Adres van perseel . . . . . .

. . . . . .

. . . . . .

Informasie om installasie te lokaliseer, bv. Blok C, Kamer 215, Tweede Verdieping:

. . . . . .

. . . . . .

B. TIPE INSTALLASIE

Ingeslote installasie . . . . . ☐ Oop installasie . . . . . ☐

C. INGESLOTE INSTALLASIE

Beskryf met behulp van 'n aangehegte diagram of plan die betrokke afskorting of kamer met besondere verwysing na:

Konstruksie . . . . . .

. . . . . .

. . . . . .

Grendels . . . . . .

. . . . . .

. . . . . .

. . . . . .

D. INGESLOTE INSTALLASIE (vervolg)

Uitleg van toerusting . . . . . .

. . . . . .

. . . . . .

. . . . . .

Waarskuwingstekens . . . . . .

. . . . . .

. . . . . .

D. DECLARATION BY APPLICANT

I hereby declare that the aforementioned information is true and correct to the best of my knowledge.

Date:. . . . . .

. . . . . .

SIGNATURE OF APPLICANT

---

ADMINISTRATION OF SOUTH WEST AFRICA

SWA.1341

APPLICATION FOR PREMISES LICENCE

N.B. – This form, if applicable, must be attached to Form SWA.1336.

| For office use only |
|---|
| License No.: |

Name and address of applicant . . . . . .
. . . . . .
. . . . . .
. . . . . .

If a product licence has been issued for the electronic product for which a premises licence is required, state:
Product Licence No. . . . . date of issue . . . . . .

A. IDENTIFICATION OF PREMISES

| Land | Building | Other structure | Motor vehicle | Train | Ship | Aircraft | Other vehicle |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| Erf No. |
|---|
| |

| Plot No. |
|---|
| |

| Vehicle registration No. |
|---|
| |

Address of premises . . . . . .
. . . . . .

Information to locate installation, e.g. Block C, Room 215, Second floor . . . . . .
. . . . . .
. . . . . .

B. TYPE OF INSTALLATION

Enclosed installation . . . . . ☐ Open installation . . . . . ☐

C. ENCLOSED INSTALLATION

With the aid of a diagram of plan to be attached describe the appropriate enclosure or room with special reference to:

Construction . . . . . .
. . . . . .
. . . . . .
Interlocks . . . . . .
. . . . . .
. . . . . .
. . . . . .
Layout of equipment . . . . . .
. . . . . .
. . . . . .
. . . . . .
Warningsignals . . . . . .
. . . . . .
. . . . . .

Stralingskerms .....

.....

.....

Enige ander beskermingsmaatreëls en -toestelle .....

.....

.....

.....

Dui aan op die plan of diagram die rigtings waarin blootstelling moontlik is.

E. OOP INSTALLASIE

Dui aan waarom 'n ingeslote installasie waarskynlik nie geskik is nie .....

.....

.....

.....

.....

.....

.....

.....

.....

Dui aan afstand vanaf elektroniese produk waarbinne ongemagtigde persone nie toegelaat word nie.

Watter positiewe maatreëls word getref om hierdie graad van isolasie te handhaaf? .....

.....

.....

.....

.....

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.....

Verstrek inligting om aan te dui dat voldoende beskerming aan die betrokke stralingswerkers verleen word .....

.....

.....

.....

.....

.....

.....

.....

.....

F. VERKLARING DEUR APPLIKANT

Ek verklaar dat die voorgaande inligting na my beste wete waar en korrek is.

Datum:. . . . . .

.....

HANDTEKENING

BYLAE B

ADMINISTRASIE VAN SUIDWES-AFRIKA

SWA. 1342

AANSOEK OM DIE WYSIGING OF WEGDOEN VAN 'N GELISENSIEERDE ELEKTRONIESE PRODUK

OF WYSIGING VAN 'N GELISENSEERDE PERSEEL

| Lisensienommer |
|---|

Naam en adres van houer:

.....

.....

.....

.....

Radiation shields .....

Any other protective measures and devices .....

Indicate on the diagram or plan the directions in which exposure is possible.

E. OPEN INSTALLATION

State why an enclosed installation is not likely to be practicable .....

Indicate the distance from the electronic product within which unauthorised persons are not allowed to enter. .....

Indicate positive measures taken to maintain this degree of isolation .....

Provide information to indicate that radiation workers involved will be adequately protected .....

F. DECLARATION BY APPLICANT

I hereby declare that the aforementioned information is true and correct to the best of my knowledge.

Date:. . . . . .

.....

SIGNATURE OF APPLICANT

ANNEXURE B

SWA.1342

ADMINISTRATION OF SOUTH WEST AFRICA

APPLICATION FOR MODIFICATION OR DISPOSAL OF A LICENSED ELECTRONIC PRODUCT OR MODIFICATION OF LICENSED PREMISES

Name and address of holder

.....

Licence No.:

A. TIPE AANSOEK

Wysiging van elektroniese produk ..... ☐ Wysiging van uitleg van toerusting ..... ☐
Wysiging van perseel ..... ☐ Wegdoen van elektroniese produk ..... ☐

B. WYSIGING VAN ELEKTRONIESE PRODUK OF PERSEEL

Beskryf die aard en omvang van die wysigings (en verstrek, indien van toepassing, 'n plan van die perseel en/of uitleg van die toerusting waarop die wysiging aangedui word)

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In watter mate behels die wysiging groter stralingsgevaar?

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.....
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.....
.....

C. WEGDOEN VAN ELEKTRONIESE PRODUK

Word die elektroniese produk gedemonteer ..... ☐ of oorgedra? ☐

D. IDENTIFIKASIE VAN PERSOON AAN WIE ELEKTRONIESE PRODUK OORGEDRA WORD

Familienaam .....
Voorname .....
Adres .....
.....
Produklisensienommer .....

E. VERKLARING DEUR HOUER

Ek verklaar dat die voorgaande inligting na my beste wete waar en korrek is

Datum:. . . . . .

.....
HANDTEKENING VAN HOUER

A. TYPE OF APPLICATION

Modification of electronic product ..... ☐ Modification of Layout equipment ..... ☐

Modification of premises ..... ☐ Disposal of electronic product ..... ☐

B. MODIFICATION OF ELECTRONIC PRODUCT OR PREMISES

Describe the nature and extent of the modifications (providing, if applicable, a plan of premises and/or layout of equipment indicating the modification)

.....

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.....

To what extent does the modification entail increased radiation danger?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

C. DISPOSAL OF ELECTRONIC PRODUCT

Is electronic product to be dismantled ..... ☐ or transferred? ☐

D. IDENTIFICATION OF TRANSFEREE

Surname .....

Names .....

Address .....

.....

Produce licence No. .....

E. DECLARATION BY HOLDER

I declare that the aforementioned information is true and correct to the best of my knowledge.

Date:. . . . . .

.....

SIGNATURE OF HOLDER

BYLAE C

SWA 1343

ADMINISTRASIE VAN SUIDWES-AFRIKA

REGISTRASIE VAN STRALINGSWERKER

Items A, C en D van hierdie vorm moet ingevul word ten opsigte van nuutaangestelde stralingswerkers. By bedanking moet die lisensiehouer die werker van 'n soortgelyke vorm voorsien waarop items A, B en D ingevul is.

Voor heraanstelling moet die stralingswerker sy werkgewer van hierdie vorm voorsien vir invoeging in laasgenoemde se register.

Naam en adres van houer:

.....
.....
.....
.....

A. BESONDERHEDE VAN STRALINGSWERKER

Famielienaam ..... Identiteitsnommer .....
Volle voorname .....
Geboortedatum .....Geslag .....
Beroep .....
Omvang van stralingswerk:
Voltyds ☐ Deeltyds ☐
Datum van aanvanklike indienstreding ..... Datum van huidige indienstreding .....
Akademiese kwalifikasies en enige toepaslike opleiding en ondervinding:
.....
.....

B VERSLAG VAN VORIGE DIENS

Datum van bedanking ..... Datum van laaste mediese ondersoek .....
Geakkumuleerde dosisekwivalent vir leeftyd ....Datum van laaste stralingsdosismeting .....
Mediese redes vir beëindiging van diens (indien van toepassing) .....
.....
Enige ander toepaslike opmerkings .....
.....

C. VERKLARING DEUR AANGESTELDE GENEESHEER

Ek is daarvan oortuig dat bogenoemde persoon goeie gesondheid geniet en vry van enige liggaams- of verstandsgebrek, siekte of swakheid is wat hom/haar moontlik in die behoorlike uitvoering van sy/haar pligte as 'n stralingswerker kan strem.

Datum. . . . . .

.....
HANDTEKENING

D. VERKLARING DEUR HOUER

Ek verklaar dat die voorgaande inligting na my beste wete waar en korrek is

Datum. . . . . .

.....
HANDTEKENING VAN HOUER

ANNEXURE C

SWA.1343

ADMINISTRATION OF SOUTH WEST AFRICA
REGISTRATION OF RADIATION WORKER

For newly employed radiation workers, items A, C and D of this record must be completed. On resignation the holder must supply the worker with a similar record of which items A, B and D must be completed. Prior to re-employment the radiation worker shall furnish the holder with this record for entry in his register.

Name and address of holder:

.....
.....
.....
.....

A. PARTICULARS OF RADIATION WORKER

Surname ..... Identity Number .....
Full first names .....
Date of birth ..... Sex .....
Occupation .....
Scope of radiation work .....
Full-time ☐ Part-time ☐
Date of initial employment ..... Date of present employment .....
Academic qualifications and any relevant training and experience .....
.....
.....

B. RECORD OF SERVICE

Date of resignation ..... Date of last medical examination .....
Lifetime accumulated dose equivalent ..... Date of last radiation dose measurement .....
Medical reasons for termination of service (if applicable): ..... .. .....
.....
Any other applicable remarks .....
.....

C. DECLARATION BY APPOINTED DOCTOR

I consider the above-mentioned person as being in good health and free from any physical or mental defect, disease or infirmity, which would be likely to interfere with the proper performance of his/her duties as radiation worker

Date:. . . . . .

.....
SIGNATURE

D. DECLARATION BY HOLDER

I declare that the aforementioned information is true and correct to the best of my knowledge.

Date:. . . . . .

.....
SIGNATURE

ADMINISTRASIE VAN SUIDWES-AFRIKA

SWA. 1344

GENEESKUNDIGE VERSLAG OOR STRALINGSWERKER

L.W. — Vgl. keersy vir instruksies

A. IDENTIFIKASIE VAN STRALINGSWERKER

Familienaam ..... Identiteitsnommer .....

Volle voorname .....

B. ONDERSOEK

BLOED

Rooiseltelling .....Witseltelling .....

Plaatjies ..... Hemoglobien .....

DIFFERENSIËLE WISSELTELLING

1. Granulosiete: (a) Neutrofiele. . . (b) Eosinofiele. . . . (c) Basofiele .....

2. Monosiete .....(3) Limfosiete .....

Abnormale selle .....

.....

OË

Ooglens .....Gesigsvelde .....

URINE

Albumien .....Suiker. . . . . Mikroskopies .....

Radio-aktiwiteit in Urine (indien nodig) .....

HANDE

Telaangiëktasie ..... Hiperkeratose. . . . . Atrofie .....

Sweetkliere .....Hare. . . . . Naels .....

C. REDE VIR ONDERSOEK

(bv. Voor indiensneming, roetine, stralingsvoorval, ens.) .....

D. SPESIALE ONDERSOEKE INDIEN NODIG EN ENIGE ANDER TOEPASLIKE OPMERKINGS

.....

.....

.....

E. VERKLARING DEUR AANGESTELDE GENEESHEER

Is u daarvan oortuig dat bogenoemde persoon goeie gesondheid geniet en vry van enige liggaams- of verstandsgebrek, siekte of swakheid is wat hom/haar moontlik in die behoorlike uitvoering van sy/haar pligte as 'n stralingswerker kan strem?

Ja ☐ Nee ☐ (Indien nee verstrek verdere besonderhede op 'n aparte vel papier.)

Naam (in blokletters) .....

Datum. . . . . .

.....

HANDTEKENING

INSTRUKSIE VIR DIE INVULLING VAN HIERDIE VORM

1. 'n Aparte vorm moet vir elke mediese ondersoek deur die aangestelde geneesheer ingevul word.

2. Die register wat in regulasie III 4(a) voorgeskryf is, bevat die inligting hierin weerspieël, saam met dié in Seksies I en III, en moet as sodanig ooreenkomstig die voorwaardes bewaar word en beskikbaar wees vir inspeksie.

3. Meld die volledige bloedtelling, en as daar enige abnormale selle of fragmente ontdek word, skryf in die oop ruimte gemerk "abnormale selle" in wat die bevinding is.

4. Indien die aangestelde geneesheer dit goedvind, kan 'n verdere ondersoek gedoen word en dan moet alle besonderhede ingevul word, bv. die uitslag van 'n ondersoek van die bloedvormende beenmurg.

ADMINISTRATION OF SOUTH WEST AFRICA

SWA. 1344

MEDICAL REPORT ON RADIATION WORKER

N.B. – See reverse side for instructions

A. IDENTIFICATION OF WORKER

Surname ..... Identity No. .....

Full first names .....

B. EXAMINATION

BLOOD

Red-cell count ..... White-cell count .....

Platelets ..... Haemoglobin .....

DIFFERENTIAL WHITE-CELL COUNT

(1) Granulocytes: (a) Neutrophiles. . . (b) Eosinophiles . . . (c) Basophiles .....

(2) Monocytes. . . . . (3) Lymphocytes .....

Abnormal cells .....

.....

EYES

Lens ..... Visual fields .....

URINE

Albumin. . . . . Sugar ..... Microscopic .....

Radioactivity in urine (if necessary) .....

HANDS

Telangiectasia ..... Hyperkeratosis. . . . . Atrophy .....

Sweat-glands ..... Hair. . . . . Nails .....

C. PURPOSE OF EXAMINATION

(e.g. pre-employment, routine, radiation occurence, etc.) .....

D. SPECIAL EXAMINATIONS IF NECESSARY, AND OTHER RELEVANT REMARKS

.....

.....

.....

E. DECLARATION BY APPOINTED DOCTOR

Do you consider that the above-mentioned person is in good health and free from any physical or mental defect, disease or infirmity, which would be likely to interfere with the proper performance of his/her duties as radiation worker?

Yes ☐ No. ☐ (if "No" give further details on separate sheet of paper).

Name (in block letters) .....

Date of examination: . . . . . .

.....

SIGNATURE

INSTRUCTIONS FOR THE COMPLETION OF THIS FORM

1. A separate form must be completed by the appointed doctor for each medical examination.
2. The register prescribed in regulation III 4(a) contains the information herein reflected together with that in Sections I and III and in terms of the provisions must be preserved as such and be available for inspection.
3. Enter the complete blood count, and, should any abnormal cells or fragments be discovered, indicate the findings in the space marked "abnormal cells".
4. At the discretion of the appointed doctor, a further examination may be made, in which case all details are to be entered, e.g. the result of an examination of the blood-forming bone marrow.

BYLAE D

SWA. 1345

ADMINISTRASIE VAN SUIDWES-AFRIKA
KENNISGEWING INGEVOLGE REGULASIES II 3(b) OF III 4(h)(1)

| Naam en adres van houer: |
|---|
| |
| |
| |
| Lisensienommer: |

A. OORSAAK VAN STRALINGSGEVAAR OF STRALINGSVOORVAL

.....
.....
.....
.....

B. MAATREËLS GETREF OM STRALINGSVOORVAL OF HERHALING DAARVAN TE VOORKOM

.....
.....
.....
.....

C. BESONDERHEDE VAN STRALINGSWERKERS BETROKKE BY VOORVAL

| Naam | Identiteits-nommer | Omvang van blootstel-ling | Vorige geakku-muleerde dosis vir leeftyd | Beserings |
|---|---|---|---|---|
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |

D. BESONDERHEDE VAN LEDE VAN DIE PUBLIEK BETROKKE BY VOORVAL

| Naam | Identiteits-nommer | Omvang van blootstelling | Beserings |
|---|---|---|---|
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |

E. VERKLARING DEUR HOUER

Ek verklaar dat die voorgaande inligting na my beste wete waar en korrek is.

Datum. . . . . .

.....
HANDTEKENING VAN HOUER

ANNEXURE D

SWA.1345

NOTIFICATION IN TERMS OF REGULATIONS II 3(b) OR III 4(h) (1)

| Name and address of holders |
|---|
| |
| |
| |
| Licence No.: |

A. CAUSE OF RADIATION DANGER OR RADIATION OCCURRENCE

.....
.....
.....
.....

B. MEASURES APPLIED TO PREVENT RADIATION OCCURRENCE OR RE-OCCURRENCE

.....
.....
.....
.....

C. PARTICULARS OF RADIATION WORKERS INVOLVED

| Name | Identity No. | Magnitude of exposure | Previous lifetime accumulated dose | Injuries |
|---|---|---|---|---|
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... |

D. PARTICULARS OF MEMBERS OF PUBLIC INVOLVED

| Name | Identity No. | Magnitude of exposure | Injuries |
|---|---|---|---|
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |

E. DECLARATION BY HOLDER

I hereby declare that the aforementioned information is true and correct to the best of my knowledge.

Date:. . . . . .

.....
SIGNATURE

## BYLAE E

## ADMINISTRASIE VAN SUIDWES-AFRIKA

### INLIGTING WAT INGESLUIT MOET WORD IN DIE VERSLAG WAT INGEVOLGE REGULASIE III 6(f) VEREIS WORD

(Hierdie inligting kan in die pasiënt se geneeskundige verslag vervat word.)

Identifikasie:

1. Familienaam
2. Name
3. Geboortedatum. (Indien nie beskikbaar nie dan geskatte ouderdom.)
4. Geslag.

Stralingsprosedure:

5. Datum of periode.
6. Diagnosties of terapeuties.
7. 'n Kort verslag van die kliniese aanduidings as gevolg waarvan die stralingsondersoek of -behandeling onderneem is.
8. Vir 'n diagnostiese ondersoek:
   (a) Die tipe van diagnostiese prosedure wat gevolg is, bv. Radiografie, Fluoroskopie en Foto-fluorografie.
   (b) Aantal blootstellings (indien van toepassing).
   (c) 'n Kort verslag van die diagnostiese inligting wat met die ondersoek verkry is.
9. Vir radioterapie:
   (a) Tipe van straling
   (b) Kwaliteit van straling
   (c) Stralingsopbrengs van die produk
   (d) Vir elke radioterapiebehandeling, 'n behandelingsplan of 'n beskrywing van sodanige plan wat die volgende inligting bevat:
      (i) Aantal stralingsvelde
      (ii) Veldgroottes
      (iii) Maksimum tumordosis (indien van toepassing)
      (iv) Minimum tumordosis (indien van toepassing)
      (v) Maksimum weefseldosis.

## BYLAE F

## ADMINISTRASIE VAN SUIDWES-AFRIKA

### GELYSTE ELEKTRONIESE PRODUKTE

(1) Diagnostiese X-straaleenhede.
(2) Terapeutiese X-straaleenhede.
(3) X-straaleenhede wat vir industriële, navorsings-, opleidings- of enige ander doeleindes gebruik word.
(4) Elektronversnellers.
(5) Versnellers wat swaar deeltjies versnel.
(6) Neutrongenerators.

## ANNEXURE E

## ADMINISTRATION OF SOUTH WEST AFRICA

## INFORMATION TO BE INCLUDED IN THE RECORD REQUIRED IN TERMS OF REGULATION III.6(f)

(This information may be included in the patients' medical record)

Identification:

1. Surname
2. Names
3. Date of birth. (If not available, estimated age)
4. Sex

Radiation procedure:

5. Date or period
6. Diagnostic or therapeutic
7. Briefly state the clinical indications for undertaking the radiation examination or treatment.
8. For diagnostic examination:
   (a) The type of diagnostic procedure followed, e.g. Radiography, Fluoroscopy or Photo-fluorography.
   (b) Number of exposures (if applicable).
   (c) Briefly state the diagnostic information obtained from the examination
9. For radiotherapy:
   (a) Type of radiation.
   (b) Quality of radiation.
   (c) Radiation output of product.
   (d) For every radiotheraphy treatment a radiation treatment plan or a description of such a plan including the following information.
      (i) Number of radiation fields.
      (ii) Field sizes.
      (iii) Maximum tumour dose (if applicable).
      (iv) Minimum tumour dose (if applicable).
      (v) Maximum tissue dose.

## ANNEXURE F

## ADMINISTRATION OF SOUTH WEST AFRICA

## LISTED ELECTRONIC PRODUCTS

(1) Diagnostic X-ray units.
(2) Therapeutic X-ray units.
(3) X-ray units used for industrial, research, educational or any other purposes.
(4) Electron accelerators.
(5) Heavy particle accelerators.
(6) Neutron generators.