STAATSKOERANT
VAN DIE REPUBLIEK VAN SUID-AFRIKA

REPUBLIC OF SOUTH AFRICA
GOVERNMENT GAZETTE

REGULASIEKOERANT No. 1730
As 'n Nuusblad by die Poskantoor Geregistreer

PRYS 20c PRICE
OORSEE 30c OVERSEAS
POSVRY — POST FREE

REGULATION GAZETTE No. 1730
Registered at the Post Office as a Newspaper

VOL. 91] PRETORIA, 19 JANUARIE 19 JANUARY 1973 [No. 3766

GOEWERMENTSKENNISGEWING

DEPARTEMENT VAN GESONDHEID

No. R. 102 19 Januarie 1973

WYSIGINGSWET OP VOLKSGESONDHEID, 1971 (WET 42 VAN 1971)

KONSEPREGULASIES BETREFFENDE ELEKTRONIESE PRODUKTE

Hiermee word vir algemene inligting bekendgemaak dat die Minister van Gesondheid ingevolge die bevoegdheid hom verleen by artikel 1 van die Wysigingswet op Volksgesondheid, 1971 (Wet 42 van 1971), van voorneme is om die volgende regulasies betreffende die beheer van elektroniese produkte te maak.

Belanghebbendes word hiermee versoek om voor 1 Maart 1973 gemotiveerde kommentaar by die Sekretaris van Gesondheid, Privaatsak X88, Pretoria, in te dien.

REGULASIES

Vir die uitvoering en toepassing van artikel 133A van die Volksgezondheidswet, 1919 (Wet 36 van 1919), soos gewysig by die Wysigingswet op Volksgesondheid, 1971 (Wet 42 van 1971), ten einde voorsiening te maak vir die beheer van elektroniese produkte en vir bykomstige aangeleenthede.

I. WOORDOMSKRYWING

In hierdie regulasies beteken—

(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;

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

(3) "bygevoegde filter" die filter wat aan die inherente filtrasie toegevoeg word;

(4) "Diens" die Personeelmoniteringsdiens genoem in regulasie III.5 (c) (1);

(5) "dosislimiet" die maksimum dosis wat die liggaam of 'n bepaalde deel van die liggaam van 'n lid van die publiek in 'n gegewe periode mag ontvang;

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

GOVERNMENT NOTICE

DEPARTMENT OF HEALTH

No. R. 102 19 January 1973

PUBLIC HEALTH AMENDMENT ACT, 1971 (ACT 42 OF 1971)

DRAFT REGULATIONS ON ELECTRONIC PRODUCTS

It is hereby notified for general information that the Minister of Health, in terms of section 1 of the Public Health Amendment Act, 1971 (Act 42 of 1971), intends to make the following regulations on the control of electronic products.

Interested parties are hereby invited to submit substantiated comments to the Secretary for Health, Private Bag X88, Pretoria, before 1 March 1973.

REGULATIONS

For the administration and enforcement of section 133A of the Public Health Act, 1919 (Act 36 of 1919), as amended by the Public Health Amendment Act, 1971 (Act 42 of 1971), to provide for the control of electronic products and for incidental matters.

I. DEFINITIONS

In these regulations—

(1) "added filter" means the filter added to the inherent filtration;

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

(3) "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 cannot exceed in 40 hours the maximum permissible weekly doses allowed by these regulations;

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

(7) "fokus-tot-vel-afstand (FVA)" die afstand vanaf lie fokuspunt van die buis tot op die vel van die pasiënt vat behandel word;

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

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

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

(11) "halveringsdikte (HVD)" die dikte van 'n absorbeermateriaal wat die invallende straling met die helfte sal attenueer;

(12) "houer" 'n persoon genoem in regulasie III.2 (a);

(13) "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 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;

(14) "inherente filter" die filter wat permanent in die nuttige bundel is en omvat die venster van die X-straalbuis en enige permanente buisomhulsel;

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

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

(17) "inspekteur" 'n persoon genoem in artikel 1 (g) van die Wet;

(18) "installasie" 'n gelyste elektroniese produk met bygaande toerusting en die ruimte waarin dit geleë is;

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

(20) "maksimum toelaatbare dosis (MTD)" die maksimum dosis wat die liggaam of 'n bepaalde deel van die liggaam van 'n stralingswerker in 'n gegewe periode mag ontvang;

(21) "mediese fisikus" 'n persoon wat as sodanig deur die Suid-Afrikaanse Geneeskundige en Tandheelkundige Raad geregistreer is en wat deur die Sekretaris as *stralings-* mediese fisikus goedgekeur is;

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

(23) "oop installasie" 'n installasie waarin die stralingsbron en alle voorwerpe daaraan blootgestel tot 'n terrein beperk is wat in 'n perseellisensie as die stralingsgebied aangewys word;

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

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

$$\text{Persentasie dieptedosis} = \frac{\text{Dd}}{\text{Dm}} \times 100;$$

(5) "appointed doctor" 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);

(6) "dose limit" means the maximum dose 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;

(7) "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 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;

(8) "external radiation" means radiation received by the body from radiation sources axternal to it;

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

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

(11) "half value layer (HVL)" means the thickness of an absorber required to attenuate half the incident radiation;

(12) "holder" means a person referred to in regulation III.2 (a);

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

(14) "inspector" means a person referred to in section 1 (g) of the Act;

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

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

(17) "ionising radiation" means electronic product radiation capable of producing ions directly or indirectly in its passage through matter;

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

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

(20) "maximum permissible dose (MPD)" means the maximum dose that the body or any specific part of the body of a radiation worker shall be permitted to receive in a stated period of time;

(21) "medical physicist" means a person who is registered as such by the South African Medical and Dental Council and who has been approved by the Secretary as a *radiation* medical physicist;

(22) "modification" means an alteration which affects the safety in use as related to the emission of electronic product radiation;

(23) "open installation" means an installation in which the radiation source, and all objects exposed thereto, are confined within premises designated as the radiation area in a premises licence;

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

$$\text{Percentage depth dose} = \frac{\text{Dd}}{\text{Dm}} \times 100;$$

(26) "persentasie dieptedosistabel" 'n tabel wat vir 'n gegewe VFA die persentasie dieptedosisse vir verskillende veldgroottes by verskillende dieptes aandui;

(27) "produklisensie" 'n lisensie genoem in regulasie II.2 (a);

(28) "proses" enige werksaamheid waarby die produksie, uitstraling of gebruik van ioniserende straling betrokke is;

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

(30) "straling" ioniserende straling;

(31) "stralingsgevaar" 'n toestand waarin persone moontlik aan meer straling as die toepaslike maksimum toelaatbare dosis of dosislimiet blootgestel kan word;

(32) "stralingsvoorval" 'n enkele gebeurtenis of reeks van 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;

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

(34) "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 die maksimum toelaatbare weeklikse dosisse wat by hierdie regulasies veroorloof word, binne 40 uur nie te bowe kan gaan nie;

(35) "toereikende beskerming" beskerming teen uitwendige straling op so 'n wyse dat die stralingsdosis wat enige persoon uit bronne buite die liggaam ontvang, die maksimum toelaatbare dosisse wat by hierdie regulasies veroorloof word, nie te bowe gaan nie;

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

(37) "tydkaart" 'n kaart waarop die blootstellingstye wat vereis word om 'n bepaalde gegewe dosis te lewer vir verskillende veldgroottes aangedui word;

(38) "verantwoordelike persoon" die persoon wat ingevolge regulasie III.3 (h) deur die houer benoem is;

(39) "wysiging" 'n verandering wat met betrekking tot straling afkomstig van 'n elektroniese produk die gebruiksveiligheid van sodanige produk sal beïnvloed;

(40) "X-straaleenheid" 'n elektroniese produk wat ontwerp, vervaardig of saamgestel is vir die primêre doel om X-strale te produseer of wat X-strale benut om sy primêre doel te vervul en waarvan sodanige uitstraling bestem is.

II. LISENSIES DEUR DIE SEKRETARIS 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 Sekretaris 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 Sekretaris gelisensieer is, behoudens die voorwaardes wat hy mag oplê. Hierdie lisensie word 'n "perseellisensie" genoem.

(25) "percentage depth dose table" means a table indicating for a specified FSD the percentage depth doses for different field sizes at different depths;

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

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

(28) "process" means any operation involving the production, emission, or use of ionising radiation;

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

(30) "radiation" means ionising radiation;

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

(32) "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;

(33) "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);

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

(35) "responsible person" means the person nominated by the holder pursuant to regulation III.3 (h);

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

(37) "time chart" means a chart indicating the exposure times required with different field sizes to yield specified given doses;

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

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

(40) "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.

II. LICENCES ISSUED BY THE SECRETARY

II.1. *Applicability*

The provisions of this regulation shall apply 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 Secretary 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 Secretary subject to such conditions as he may impose. This licence shall be called a "premises licence".

(c) Niemand mag 'n gelyste 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 Sekretaris by wyse van 'n endossement op die betrokke lisensie verkry is.

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

(a) 'n Aansoek om 'n lisensie of om 'n endossement van 'n lisensie ingevolge regulasie II.2 moet aan die Sekretaris 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, nl. die laatste datum.

(b) Dit is die uiteindelike verantwoordelikheid van die applikant vir 'n lisensie of endossement van 'n lisensie om, benewens die inligting wat op die vorm vereis word, enige ander toepaslike inligting aan die Sekretaris te verstrek insake stralingsgevare waarvan hy bewus mag wees op die datum van aansoek of op enige tydstip daarna en wat moontlik die uitreiking, intrekking of opskorting van 'n lisensie ingevolge regulasie III.2 (b) kan beïnvloed.

II.4. *Toestaan van 'n lisensie*

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

(b) Indien die Sekretaris weier om 'n lisensie of endossement van 'n lisensie toe te staan moet hy die applikant skriftelik verwittig en sy redes verstrek.

(c) Indien, volgens die oordeel van die Sekretaris, 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.

III. VOORWAARDES WAARBEHOUDENS LISENSIES UITGEREIK KAN WORD

III.1. *Toepaslikheid*

Die bepalings van regulasie III is van toepassing op die houers van lisensies wat kragtens hierdie regulasies uitgereik is.

III.2. *Bepalings met betrekking tot lisensies*

(a) 'n Lisensie wat ingevolge regulasie II.2 uitgereik word, word aan die houer van sodanige lisensie persoonlik uitgereik (hieronder "die houer" genoem).

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

(1) die houer of enigeen van sy werknemers enige bepaling van die regulasies of 'n voorwaarde van 'n lisensie oortree;

(2) die Sekretaris dit in die belang van die publiek ag;

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

(c) No person shall modify or dispose of a listed 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 Secretary 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 Secretary 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) It shall remain the ultimate responsibility of the applicant for a licence or an endorsement of a licence to furnish the Secretary, in addition to the information required on the form with any other relevant information regarding radiation dangers that he may be aware of at the date of application or at any time thereafter and that could possibly influence the issue, withdrawal or suspension of a licence pursuant to regulation III.2 (b).

II.4. *Granting of a licence*

(a) The Secretary before granting a licence or an endorsement of a licence may require oral representations and/or an inspection *in loco* by an inspector. The Secretary 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 representations and/or the date and time when the applicant shall be personally available for an inspection *in loco*.

(b) If the Secretary refuses to grant a licence or an endorsement of a licence he shall give the applicant written notice to that effect, stating his reasons.

(c) If two or more listed electronic products are, in the opinion of the Secretary, 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.

III. CONDITIONS SUBJECT TO WHICH LICENCES MAY BE ISSUED

III.1. *Applicability*

The provisions of regulation III shall apply to holders of licences issued in terms of these regulations.

III.2. *Provisions regarding licences*

(a) A licence issued in terms of regulation II.2 shall be personal to the holder of such licence (hereinafter referred to as "the holder").

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

(1) the holder or any of his employees contravenes any provision of the regulations or a condition of a licence;

(2) the Secretary considers it to be in the public interest.

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

III.3. *Bepalings met betrekking tot lisensiehouers*

(a) Die houer is aanspreeklik vir alle stralingskade wat op die perseel of deur 'n elektroniese produk waarvan hy die lisensiehouer is, veroorsaak word. Niemand anders as die betrokke houer is aanspreeklik vir enige sodanige stralingskade nie en geen skuld van enige persoon is 'n verweer teen 'n eis vir skadevergoeding op grond van sodanige skade nie of raak die bedrag van die skadevergoeding nie.

(b) Ondanks die bepalings van paragraaf (a) is die houer nie aanspreeklik nie vir stralingskade—

(1) vir sover dit aan oormag toe te skryf is;

(2) aan 'n persoon, of die afhanklike van 'n persoon, vir sover sodanige skade toe te skryf is aan die aanwesigheid van sodanige persoon op die betrokke perseel sonder die toestemming van die houer of 'n persoon wat namens die houer optree;

(3) aan 'n persoon, of die afhanklike van 'n persoon, wat sodanige skade opsetlik veroorsaak het of opsetlik tot die oorsaak daarvan bygedra het.

(c) Die houer word vir die doeleindes van verhaal op of bydrae deur 'n persoon wat die skade waarvoor die houer ingevolge paragraaf (a) aanspreeklik is, opsetlik veroorsaak het of wat opsetlik tot die oorsaak van die skade bygedra het, geag, uit hoofde van onregmatige daad, daarvoor aanspreeklik te wees; en die houer behou enige reg van verhaal of kontribusie wat hy teenoor 'n persoon het ten opsigte van enige skade waarvoor hy ingevolge paragraaf (a) aanspreeklik is.

(d) Benewens ander toepaslike bepalings, verleen 'n lisensie wat ingevolge regulasie II.2 toegestaan is aan die houer die duidelike reg om 'n gelyste elektroniese produk of gelisensieerde perseel slegs vir gespesifiseerde doeleindes te gebruik.

(e) Die houer is uiteindelik aanspreeklik vir die hele omvang van stralingsbeskerming met betrekking tot 'n gelyste elektroniese produk of perseel waarvoor hy 'n lisensie hou. Sodanige aanspreeklikheid het betrekking op enige aspekte wat redelikerwys onder stralingsbeskerming ingesluit kan word en, benewens ander toepaslike verantwoordelikhede wat die Sekretaris in die lisensie kan spesifiseer, behels dit—

(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) sodanige beveiliging dat stralingswerkers, die publiek in die algemeen en pasiënte aan minimale risiko's van stralingsblootstelling onderwerp word en dat die jongste aanbevelings van maksimum toelaatbare dososis en dosislimiet deur die Internasionale Kommissie vir Radiologiese Beskerming (I.K.R.B.) vir eersgenoemde twee groepe (waarvan besonderhede by die Sekretaris verkrygbaar is) nie oorskry word nie.

(f) Om die veilige gebruik van gelyste elektroniese produkte onder sy beheer te verseker moet die houer die Sekretaris oortuig van sy kennis en/of ondervinding ten opsigte van—

(1) algemene basiese beginsels van stralingsbeskerming; en

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

III.3 *Provisions regarding licence holders*

(a) The holder shall be liable for all radiation damage caused upon premises or by an electronic product for which he holds a licence. No person other than the holder in question shall be liable for any such radiation damage and no fault of any person shall be a defence against any claim for compensation on account of such damage or affect the amount of compensation.

(b) Notwithstanding the provisions of paragraph (a) the holder shall not be liable for any radiation damage—

(1) to the extent that it is attributable to *vis major*;

(2) to any person or the dependant of any person to the extent that such damage is attributable to the presence of such person on the premises in question without the permission of the holder or a person acting on behalf of the holder;

(3) to any person or the dependant of any person who deliberately caused or deliberately contributed to the cause of such damage.

(c) The holder shall, for the purposes of recourse against or contribution by any person who deliberately caused or deliberately contributed to the cause of the damage for which the holder is liable in terms of paragraph (a), be deemed to be liable in delict therefor; and the holder shall retain any right of recourse or contribution which he may have against any person in respect of any damage for which he is liable in terms of paragraph (a).

(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 specified purposes only.

(e) The holder shall be ultimately 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 aspects that could reasonably be included under radiation protection, and, in addition to other relevant responsibilities which the Secretary 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 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, the public at large and patients are subjected to minimal risks from radiation exposure, and that the latest recommendations of maximum permissible dose and dose limit by the International Commission on Radiological Protection (I.C.R.P.) for the first-mentioned two groups (details of which are obtainable from the Secretary) shall not be exceeded.

(f) To provide for the safe use of listed electronic products under his control the holder shall satisfy the Secretary 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.

(g) Die uiteindelike verantwoordelikheid vir die nakoming van die bepalings van hierdie regulasies rus op die houer van die betrokke lisensies, wat die persoon in beheer van die gelisensieerde perseel is.

(h) Indien 'n aspirant-houer, genoem in paragraaf (g)—

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

(2) dit doelmatiger vind,

kan hy, vir goedkeuring deur die Sekretaris, 'n persoon of persone wat aan die bepalings van paragraaf (f) voldoen, in die aansoek om 'n lisensie benoem om namens die houer uitvoering te gee aan die houer se verpligtinge ingevolge die betrokke lisensies. Sodanige persoon of persone word die "verantwoordelike persoon" genoem.

(i) Die verantwoordelike persoon moet 'n skriftelike aanwysing as sodanig van die houer ontvang wat daarvoor voorsiening maak dat dit van toepassing bly totdat 'n versoek om intrekking of vervanging daarvan deur die Sekretaris goedgekeur is.

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

(k) 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 registers, boeke, rekords, geskrifte en dokumente wat kan help om vas te stel of die houer voldoen aan die bepalings van hierdie regulasies.

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

III.4. *Bepalings met betrekking tot stralingswerkers*

(a) Elke houer moet 'n register (hieronder "sy register" genoem) hou wat saamgestel is uit die vorms wat in Bylae C getoon word en waarin alle personeel wat by hom as stralingswerkers of leerling-stralingswerkers in diens is, as sodanig geregistreer moet wees.

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

(c) Elke houer moet die Sekretaris onmiddellik in kennis stel van enige verandering in sy register vanweë die beëindiging van 'n stralingswerker se registrasie, om watter rede en vir watter tydperk ook al, of vanweë die registrasie van 'n nuut aangestelde of heraangestelde stralingswerker. Sodanige kennisgewing moet geskied op die vorm wat in Bylae C (Seksie I) getoon word.

(d) By die beëindiging van 'n stralingswerker se diens moet die houer aan hom 'n diensverslag verstrek op 'n vorm soos in Bylae C (Seksie I) getoon.

(e) Alvorens 'n persoon as stralingswerker heraangestel 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 te verseker dat daar uit vorige diens geen regsgeldige redes voortspruit waarom sodanige persoon nie voorts as stralingswerker in diens geneem kan word nie; en

(2) vir inskrywing in sy register.

(f) Elke register wat ingevolge paragraaf (a) gehou word, moet—

(1) bewaar word vir 'n periode van 10 jaar vanaf die datum van die laaste inskrywing en moet ooreenkomstig regulasie III.3 (k) vir inspeksie beskikbaar gestel word;

(g) Ultimate responsibility for compliance with these regulations shall rest with the holder of the applicable licences, who shall be the controlling authority of the licensed premises.

(h) If a prospective holder referred to in paragraph (g)—

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

(2) finds it more expedient;

he may nominate, in the application for a licence, a person or persons to be approved by the Secretary who comply with the provisions of paragraph (f) to execute on behalf of the holder the holder's obligations under the applicable licences. Such a person or persons shall be referred to as the "responsible person".

(i) The responsible person shall receive designation as such in writing from the holder, which shall provide that it will remain in effect until any request for withdrawal or replacement thereof is approved by the Secretary.

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

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

(l) 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") composed of the forms shown in Annexure C in which all personnel employed by him as radiation workers and trainee radiation workers shall be registered as such.

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

(c) Every holder shall immediately notify the Secretary 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 of a newly employed or re-employed radiation worker. Such notification shall be on the form shown in Annexure C (Section I).

(d) A radiation worker shall, on the termination of his employment with a holder, be furnished by the holder with a record of service on a form shown in Annexure C (Section I).

(e) Prior to re-employment as a radiation worker a person shall furnish the holder with the record referred to in paragraph (d) and any other details regarding his employment on any radiation work—

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

(2) for entry in his register.

(f) Every register kept in terms of 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 (k);

(2) indien die Sekretaris dit vereis, aan hom gestuur 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) slegs persone wat ingevolge paragraaf (a), as stralingswerkers geregistreer is, gelyste elektroniese produkte wat onder sy beheer is, met sy goedkeuring hanteer en aan straling blootgestel word terwyl met sodanige produkte gewerk word;

(2) geen stralingswerker vanweë sy beroep homself blootstel of aan ioniserende straling blootgestel word sonder toereikende beskerming nie; en

(3) in noodgevalle geen persoon 'n dosis ontvang wat groter is as die maksimum toelaatbare dosis wat tans deur die Internasionale Kommissie vir Radiologiese Beskerming vir blootstelling tydens noodgevalle aanbeveel word nie—waarvan besonderhede by die Sekretaris 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 Sekretaris rapporteer op die vorm wat in Bylae D getoon word;

(2) saam met sy verantwoordelike persoon, indien van toepassing, en sy aangestelde geneesheer die omstandighede waaronder die blootstelling plaasgevind het en die moontlike uitwerking daarvan op betrokke persone ondersoek en besluit watter stappe gedoen moet word.

(i) Elke houer moet hom daarvan oortuig dat enige persoon wat ingevolge paragraaf (a) as stralingswerker geregistreer is of gaan word—

(1) medies geskik en nie swanger is nie;

(2) oor voldoende kennis en ondervinding beskik om die gelyste elektroniese produkte onder sy beheer te bedien en ook ten volle vertroud is met gesondheids- en veiligheidsmaatreëls en bedryfsinstruksies wat daarop van toepassing is.

(j) 'n Stralingswerker wat nie aan die bepalings van paragraaf (i) (2) voldoen nie, moet beskou word as 'n leerling-stralingswerker en mag 'n gelyste elektroniese produk bedien of aan straling blootgestel word terwyl met sodanige produk gewerk word, slegs onder toesig van 'n stralingswerker wat aan die bepalings van paragraaf (i) (2) voldoen.

(k) 'n Persoon se diens as stralingswerker moet deur die houer beëindig word, indien—

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

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

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

(l) Indien die Sekretaris 'n persoon se voortgesette diens as stralingswerker afkeur, moet hy die houer en sodanige persoon skriftelik in kennis stel, met verstrekking van—

(1) die rede(s) daarvoor;

(2) die voorwaardes, as daar is, waaronder die diens nog kan voortgaan;

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

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

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

(a) *Die aangestelde geneesheer.*—(1) 'n Geneesheer moet as aangestelde geneesheer in die aansoek om 'n lisensie benoem word.

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

(2) if required by the Secretary, 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) shall with his approval handle listed electronic products under his control and be exposed to radiation whilst working with such products;

(2) no radiation worker exposes himself or is exposed to ionising radiation as a result of his occupation without adequate protection; and

(3) in cases of emergency, no person receives a dose 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 Secretary.

(h) Every holder shall—

(1) immediately report to the Secretary on the form shown in Annexure D all suspected radiation occurrences reported or otherwise known to him;

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

(i) Every holder shall satisfy himself that any person registered or to be registered as a radiation worker pursuant to paragraph (a)—

(1) is medically fit and not pregnant;

(2) has adequate knowledge and experience to operate and is fully conversant with the 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) (2) shall be 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) (2).

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

(1) the employee 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 Secretary deems it necessary in the interests of radiation safety measures.

(l) If the Secretary disapproves of the continued employment of a person as a radiation worker he shall notify the holder and such person, in writing, stating—

(1) the reason(s) therefor;

(2) the conditions, if any, subject to which employment need not be terminated;

(3) the date of termination, if applicable;

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

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

(a) *The appointed doctor.*—(1) A doctor shall be nominated as the appointed doctor in the application for a licence.

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

(3) Indien die benoeming deur die Sekretaris goedgekeur word, word die aangestelde geneesheer in die lisensie genoem en moet hy 'n skriftelike aanwysing as sodanig van die houer ontvang.

(4) Sodanige aanwysing moet bepaal dat—

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

(ii) die aangestelde geneesheer uitsluitlik aan die houer verantwoordelik is vir die mediese beheer van stralingswerkers en vir advies aan die houer in verband met die noodsaaklikheid van die opskorting van 'n werknemer se dienste as stralingswerker;

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

(iv) die aangestelde geneesheer minstens vertroud is met die algemene skadelike gevolge van ioniserende straling en in alle opsigte ervare is in die diagnose van sodanige gevolge.

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

(b) *Mediese ondersoeke en toetse van stralingswerkers.*—(1) Niemand word as stralingswerker aangestel of heraangestel nie, tensy hy gedurende die 30 dae wat sy aanstelling of heraanstelling vooraf gaan deur die aangestelde geneesheer ondersoek en by wyse van 'n ondertekende inskrywing in die register, vir indiensneming geskik verklaar is.

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

(i) by tussenpose van hoogstens 14 maande vir solank hy as stralingswerker in diens 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 Sekretaris dit nodig ag.

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

(c) *Monitering van stralingswerkers.*—Elke houer moet verseker dat—

(1) sy stralingswerkers gemoniteer word deur 'n Personeelmoniteringsdiens wat vooraf deur die Sekretaris goedgekeur is en hieronder die "Diens" genoem. Inligting in verband met die Diens kan by die Sekretaris verkry word;

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

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

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

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

(4) die stralingsdosis wat as resultaat van elke filmwapenaflesing verkry word, deur die Diens aan hom verstrek word, vir opneming in sy register;

(5) sakdosismeters met volle skaaluitwykings van hoogstens 250 millirads beskikbaar is en gedra word deur stralingswerkers wie se werksomstandighede sodanig is dat—

(i) hulle moontlik aan straling van meer as 20 millirads in een dag blootgestel kan word; en/of

(ii) die Sekretaris dit nodig ag;

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

(3) If the nomination is approved by the Secretary, the appointed doctor 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 Secretary;

(ii) the appointed doctor shall be exclusively responsible to the holder for the medical control of radiation workers and for advising the holder regarding the necessity for suspension of any employee as radiation worker;

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

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

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

(b) *Medical examinations and tests of radiation workers.*—(1) No person shall be employed or re-employed as a radiation worker unless within a period of 30 days immediately preceding his employment or re-employment he has been examined by the appointed doctor and certified fit for employment 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 doctor—

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

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

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

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

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

(c) *Monitoring of radiation workers.*—Every holder shall ensure that—

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

(2) in addition to any other monitoring equipment every radiation worker always, during his working hours, wears a film badge 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 the holder for inclusion in his register;

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

(i) they are liable to be exposed to radiation in excess of 20 millirads during any one day; and/or

(ii) the Secretary deems it necessary;

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

(7) sakdosismeters en ander moniteringstoerusting by geskikte tussenpose van hoogstens 14 dae gedurende gebruik, afgelees word en die aflesings in die register ingeskryf word;

(8) 'n persoon of inrigting wat deur die Sekretaris goedgekeur is, sakdosismeters en enige ander moniteteringstoerusting, deur die Sekretaris voorgeskryf, yk en toets—

(i) voordat dit in gebruik geneem word;

(ii) nadat herstelwerk daaraan gedoen is; en

(iii) by gereelde tussenpose van hoogstens 14 maande gedurende die gebruik daarvan;

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

III.6. *Bepalings met betrekking tot pasiënte*

Elke houer van 'n lisensie vir 'n gelyste elektroniese produk vir mediese gebruik moet verseker dat—

(a) blootstelling van mense aan 'n nuttige bundel toegelaat word slegs vir streng noodsaaklike mediese prosedures 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 diagnotiese 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 slegs essensiële ondersoeke gedoen mag word;

(e) sy stralingswerkers wat sodanige produk gebruik, benewens die besit van die tegniese kennis wat ingevolge regulasie III.4 (i) (2) vereis word, ten volle vertroud is met die tans aanvaarde beginsels en tegnieke om stralingsgevare vir pasiënte tot 'n minimum te beperk en dat sodanige werkers wel van hierdie tegnieke en enige verbeterings daarvan, waarvan besonderhede by die Sekretaris verkry kan word, gebruik maak;

(f) 'n ondertekende verslag gehou word van elke pasiënt wat blootgestel word aan straling uit 'n elektroniese produk waarvoor 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 aan elke elektroniese produk wat vir diagnostiese ondersoeke gelisensieer is, 'n tegniekkaart is wat die tegniekfaktore (buisspanning, buisstroom, 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 mediese fisikus of ander persoon deur die Sekretaris goedgekeur, ten volle geyk is voordat dit gebruik word, na herstelwerk en by gereelde tussenpose van hoogstens drie maande tydens die gebruik daarvan;

(2) voorsien is van ('n) toepaslike stel(le) isodisiskurwes en/of persentasie dieptedosistabel(le), wat die persentasie dieptedosis aandui vir die verskillende veldgroottes wat gebruik word;

(i) die mediese fisikus of ander persoon genoem in paragraaf (h) (1), by voltooiing van elke yking hom voorsien van 'n behoorlik ondertekende en gedateerde toepaslike tydkaart. Elke tydkaart moet deur die houer vir 'n tydperk van 12 maande bewaar word as rekord van sodanige yking; en moet hom daarvan oortuig dat

(7) pocket dosimeters and other monitoring equipment is read at suitable intervals not exceeding 14 days during use and the readings entered in the register;

(8) pocket dosimeters and any other monitoring equipment prescribed by the Secretary is calibrated and tested by a person or institution approved by the Secretary—

(i) before being brought into use;

(ii) after repairs; and

(iii) at regular intervals not exceeding 14 months while in use;

(9) a record of the date and result of any calibration 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 procedures 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) (2), fully conversant with currently accepted principles and techniques to minimise radiation hazards to patients and that such workers in fact take advantage of such techinques and any improvements thereof, details of which are obtainable from the Secretary;

(f) a signed 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, 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) fully calibrated by a medical physicist or other person approved by the Secretary before being brought into use, after repairs and at regular intervals not exceeding three months in the course of use;

(2) provided with appropriate set(s) of isodose curves and/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 calibration, furnishes him with an appropriate time chart duly signed and dated. Each time chart shall be retained by the holder for a period of 12 months as a record of such calibration; and

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

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

(a) Tensy toestemming in 'n produklisensie verleen is, mag mense nie vir nie-geneeskundige doeleindes aan 'n nuttige bundel blootgestel word nie, uitgesonderd in die geval van noodsaaklike ondersoeke wat vir doeleindes van die toepassing van die wet deur die Departement van Polisie onderneem word, en dan geld die volgende bepalings:

(1) Slegs 'n elektroniese produk wat deur die Sekretaris vir mediese diagnostiese ondersoeke gelisensieer is, mag gebruik word.

(2) Die ondertekende goedkeuring van die houer om die prosedure uit te voer moet verkry word.

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

(4) Geen swanger vroue of persone onder die ouderdom van 18 jaar mag vir niegeneeskundige doeleindes aan 'n nuttige bundel blootgestel word nie.

(b) Wanneer 'n elektroniese produk gelisensieer is vir die roetiene-blootstelling van mense vir nie-geneeskundige doeleindes, 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 spesiale groepe werkers moet die proses in ooreenstemming met al die toepaslike bepalings van die regulasies met betrekking tot stralingswerkers uitgevoer word.

(3) Getroude vroue van reproduktiewe ouderdom, swanger vroue en persone onder die ouderdom van 18 jaar, mag nie aan roetine-blootstelling vir nie-geneeskundige doeleindes onderwerp word nie.

III.8. *Spesiale vrystellings*

(a) Die houer ten opsigte van wie die bepalings van hierdie regulasie geld, kan 'n versoek aan die Sekretaris voorlê om vrygestel te word van al of enigeen van hierdie bepalings.

(b) Sodanige versoek moet skriftelik en volledig gemotiveer wees.

(c) Die Sekretaris kan vrystelling verleen behoudens sodanige voorwaardes as wat hy mag bepaal.

IV. VOORWAARDES VIR REGISTRASIE AS STRALINGSWERKERS

IV.1. *Toepaslikheid*

Die bepalings van hierdie regulasie is van toepassing op stralingswerkers.

IV.2. *Vereistes vir indiensneming*

Elke stralingswerker moet—

(a) benewens die verslag genoem in regulasie III.4 (e) aan die houer enige ander tersaaklike inligting waarvan hy bewus mag wees op die datum van indiensneming of op enige tydstip daarna en wat moontlik sy registrasie as stralingswerker kan beïnvloed, verstrek;

(b) tydens sy dienstermyn doeltreffende stralingsbeskerming uitoefen, in ooreenstemming met tans erkende nasionale en internasionale riglyne vir stralingsbeskerming, waarvan besonderhede by die houer verkrygbaar is;

(j) shall satisfy himself that 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. *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 by the Department of Police in which case the following provisions shall apply:

(1) Only an electronic product licenced by the Secretary for medical diagnostic examinations shall be used.

(2) The signed approval of the holder is obtained for undertaking the process.

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

(4) No pregnant women or persons under the age of 18 years shall be exposed to the useful beam for non-medical purposes.

(b) When an electronic product is licensed for the exposure of human beings 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 applicable provisions of the regulations regarding patients.

(2) For special groups of workers the process shall be carried out in accordance with all the applicable provisions of the regulations regarding radiation workers.

(3) Married women of reproductive age, pregnant women and persons under the age of 18 years shall not be subject to routine exposure for non-medical reasons.

III.8. *Special exemptions*

(a) The holder to whom the provisions of this regulation apply may submit to the Secretary a request to be exempted from all or any of these provisions.

(b) Such a request shall be in writing, setting out full grounds.

(c) The Secretary may grant exemption subject to such conditions as he may specify.

IV. CONDITIONS FOR REGISTRATION AS RADIATION WORKERS

IV.1. *Applicability*

The provisions of this regulation shall apply to radiation workers.

IV.2. *Employment requirements*

Every radiation worker shall—

(a) in addition to the record referred to in regulation III.4 (e) furnish the holder with any other relevant information he may be aware of at the date of employment or at any time thereafter which could influence his registration as radiation worker;

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

(c) op enige tyd gedurende sy dienstermyn as sodanig hom onderwerp aan eksaminering deur 'n persoon of komitee deur die Sekretaris daartoe gemagtig, om vas te stel of hy voldoen aan die bepalings van regulasie III.4 (i) (2);

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

(e) die houer onmiddellik in kennis stel as hy vermoed dat sy gesondheid deur beroepsfaktore nadelig beïnvloed is, beïnvloed word of beïnvloed mag word;

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

REPUBLIEK VAN SUID-AFRIKA

DEPARTEMENT VAN GESONDHEID

Die Sekretaris van Gesondheid
Privaatsak X88
Pretoria

STRALINGSBEHEER

Instruksies:

1. Vir instruksies sien laaste bladsy van hierdie vorm wat vir maklike verwysingsdoeleindes afgeskeur kan word.
2. Die toepaslike Seksie II en/of III moet aan hierdie vorm geheg word.

Slegs vir kantoorgebruik.

1. Vormkodenommer: H 100.01 * — A,N (10)

Datum van invulling van hierdie vorm.

2. Dag | Mnd. | Jr. | | | | * — N (6)

3. Tipe aansoek. Hierdie aansoek word voorgelê om:

(a) Produklisensie(s) Aantal lisensies: 1 * — N (4)

(b) Perseellisensie(s) Aantal lisensies: 2 * — N (4)

AANSOEK OM 'N PRODUK- EN/OF PERSEELLISENSIE: BYLAE A: SEKSIE I

[Ingevolge die Wysigingswet op Volksgesondheid 1971 (Wet 42 van 1971)]

4. My lêerverwysingsnommer: * — A,N (15)

Slegs vir kantoorgebruik

5. Vullingspuntkode

Streek	Diens	Owerheid	Kliniek	
				*

N (10)

Besonderhede oor applikant

6. Familienaam: * — A (24)

7. Voorname (vol): * — A (30)

8. Identiteitsnommer: * — A,N (9)

9. Naam van beroep of besigheid: * — A,N (45)

10. Posadres van praktyk of besigheid: * — A,N (120)

(c) at any time during his employment as such submit himself for examination by a person or committee authorised thereto by the Secretary in order to determine whether he complies with the provisions of regulation III.4 (i) (2);

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

(e) notify the holder immediately he suspects that his 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 shall comply with requirements which apply to him.

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

The Secretary for Health
Private Bag X88
Pretoria

RADIATION CONTROL

Instructions:

1. For instructions see the last page of this form which may be torn off for easy reference purposes.
2. The relevant section II and/or III must be attached to this form.

For office use only.

1. Form Code/No.: H 100.01 * — A,N (10)

Date of completion of this form:

2. Day | Mnth | Year | | | | * — N (6)

3. Type of application. This application is submitted for:

(a) Product licence(s) Number of licences: 1 * — N (4)

(b) Premises licence(s) Number of licences: 2 * — N (4)

APPLICATION FOR A LICENCE AND/OR PREMISES, LICENCE: ANNEXURE A; SECTION 1

[In terms of Public Health Amendment Act 1971 (Act 42 of 1971)]

4. My file reference No.: * — A,N (15)

For office use only

5. Source point code

Reg.	Serv.	Authority	Clin	
				*

N (10)

Particulars regarding applicant

6. Surname: * — A (24)

7. Names (full): * — A (30)

8. Identity No.: * — A,N (9)

9. Name of profession or business: * — A,N (45)

10. Postal address of practice or business: * — A,N (120)

11. Instansie:

Klassifikasie van instansie (2)		Naam van Instansie (45)	Rang of posbenaming in die instansie, bv. Mediese Superintendent (45)	Posadres (120)
Sentrale Regering	01			
Provinsiale Administrasie	02			
Plaaslike Owerheid	03			
Statutêre Liggaam	04			
Publieke Maatskappy Bpk.	05			
Privaatmaatskappy (Edms.) Bpk.	06			
Ander (spesifiseer)	07			

12. Kwalifikasies [verstrek inligting om aan regulasie III. 3 (f) te voldoen]:

(a) Akademies:

Beskrywing (45)	Datum verwerf (6)	Uitgereik deur (45)

(b) Ander toepaslike opleiding en/of ondervinding met betrekking tot Stralingsbeskerming (150):

.....

.....

.....

.....

.....

.....

BESONDERHEDE IN VERBAND MET BENOEMDE VERANTWOORDELIKE PERSOON(SONE)

13. Persoonlike besonderhede:

	Familienaam (24)	Voorletters (4)	Identiteitsnommer (9)	Posadres (120)
01				
02				
03				
04				
05				

11. Establishment:

Classification of Establishment (2)		Name of Establishment (45)	Rank or designation in the establishment, e.g. Medical Superintendent (45)	Postal address (120)
Central Government	01			
Provincial Administration	02			
Local Authority..	03			
Statutory Body...	04			
Public Company Ltd	05			
Private Company (Pty) Ltd	06			
Other (specify)....	07			

12. Qualifications [supply information to comply with regulation III. 3, (f)].

(a) Academic:

Description (45)	Date obtained (6)	Issued by (45)

(b) Other relevant training and/or experience regarding Radiation (150):

.....

.....

.....

.....

.....

.....

PARTICULARS REGARDING NOMINATED RESPONSIBLE PERSON(S)

13. Personal particulars:

	Surname (24)	Initials (4)	Identity No. (9)	Postal address (120)
01				
02				
03				
04				
05				

14. Kwalifikasies [verstrek inligting om aan regulasie III.3 (f), gelees met (h), te voldoen]:

(a) Akademies:

	Beskrywing (45)	Datum verwerf (6)	Uitgereik deur (45)
01			
02			
03			
04			
05			

(b) Ander toepaslike opleiding en/of ondervinding 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 (h), (i) en (j) en aanvaar hierby my benoeming.

01	Handtekening: Benoemde
02	Handtekening: Benoemde
03	Handtekening: Benoemde
04	Handtekening: Benoemde
05	Handtekening: Benoemde

BESONDERHEDE IN VERBAND MET BENOEMDE AANGESTELDE GENEESHEER(HERE)

15. Persoonlike besonderhede:

	Familienaam (24)	Voorletters (4)	Posadres (120)	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 reg. III.-5 (a), (3) en (4) te voldoen en aanvaar hierby my benoeming
01				Handtekening: Aangestelde geneesheer
02				Handtekening: Aangestelde geneesheer
03				Handtekening: Aangestelde geneesheer
04				Handtekening: Aangestelde geneesheer
05				Handtekening: Aangestelde geneesheer

16. Personeelmoniteringsdiens:

Geregistreerde naam..... *

Verklaring deur applikant:

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

.....

14. Qualifications [supply information to comply with regulation III.3 (f), read with (h)]:

(a) Academic:

	Description (45)	Date obtained (6)	Issued by (45)
01			
02			
03			
04			
05			

(b) Other relevant training and/or experience regarding radiation protection:

I herby declare that I have read the relevant regulations and that I am able to comply with the provisions of regulation III.3 (h), (i) and (j) and hereby accept my nomination.

01	Signature: Nominee
02	Signature: Nominee
03	Signature: Nominee
04	Signature: Nominee
05	Signature: Nominee

PARTICULARS REGARDING NOMINATED APPOINTED DOCTOR(S)

15. Personal particulars:

	Surname (24)	Initials (4)	Postal address (120)	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
01				Signature: Appointed doctor
02				Signature: Appointed doctor
03				Signature: Appointed doctor
04				Signature: Appointed doctor
05				Signature: Appointed doctor

16. Personnel monitoring service:

Registered name..... *

Declaration by applicant:

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

.....

INSTRUKSIES VIR DIE INVULLING VAN HIERDIE VORM

1. Seksie I van hierdie vorm moet in alle gevalle ingevul word ongeag die tipe aansoek.
   Vir elke groep produk of perseellisensies wat gelyktydig ingedien word, kan Seksie I slegs een keer ingevul word.
2. Seksie II moet ingevul word slegs ten opsigte van 'n aansoek om 'n produklisensie.
   Indien die produklisensie bedoel is vir—
   (a) 'n diagnostiese X-straaleenheid, vul slegs Seksie II (a) in;
   (b) 'n terapeutiese X-straaleenheid, vul slegs Seksie II (b) in;
   (c) 'n X-straaleenheid vir ander doeleindes gebruik as bogenoemde (a) en (b), vul slegs Seksie II (c) in;
   (d) versnellers en neutrongenerators, vul slegs Seksie II (d) in.
3. Seksie III moet ingevul word ten opsigte van 'n aansoek om 'n perseellisensie.
4. Ignoreer die klein syfers tussen hakies of in vierkante, byvoorbeeld:

   My lêerverwysingsnommer.

4		*
—	(15)	—

5. Waar die toegelate skryfruimte onvoldoende is, heg nog 'n vel papier aan.
6. Merk die tersaaklike vierkant met 'n "X" indien van toepassing,, byvoorbeeld:

X	02	*

7. Verstrek die inligting in die tersaaklike ruimte, indien van toepassing, byvoorbeeld:

1	1.2.0.0.....	*
2	1.6.1.1.....	*

8. Items 9 en 10: Verstrek die naa— en adres waaronder die applikant sy besigheid of sy professie uitoefen; of
   Item 11: Verstrek die naam en adres van die instansie waarvoor die applikant die persoon in beheer ingevolge regulasie III.3 (g) is.

H 100.02

REPUBLIEK VAN SUID-AFRIKA

DEPARTEMENT VAN GESONDHEID

STRALINGSBEHEER

AANSOEK OM 'N PRODUK- EN/OF PERSEELLISENSIE: BYLAE A: SEKSIE 11(a)

MEDIES DIAGNOSTIESE X-STRAALEENHEID

Instruksies:

Hierdie vorm, indien van toepassing, moet geheg word aan Seksie 1 van die betrokke vorm van aansoek om 'n produk- en/of perseellisensie.

Slegs vir kantoorgebruik

1. Vormkodenommer | * | A,N (10)

Datum van invulling van hierdie vorm

2. Dag | Mnd. | Jr. | * | N (6)

3. Familienaam van applikant | * | A (24)

4. Voorletters van applikant | * | (4)

5. My lêerverwysingsnommer | * | A,N (15)

6. Slegs vir kantoorgebruik
   Produk-lisensienommer | *

Identifikasie van produk:

7. Model .....

8. Beheerpaneelreeksnommer .....

INSTRUCTIONS FOR THE COMPLETION OF THIS FORM

1. Section I of this form must be completed in all cases irrespective of the type of application.
   For each group of product and/or premises licences filed simultaneously Section I need be completed only once.
2. Section II must be completed only in respect of an application for a product licence.
   If the product licence is intended for—
   (a) diagnostic X-ray unit, only complete Section II (a);
   (b) therapeutic X-ray unit, only complete Section II (b);
   (c) X-ray unit used for other purposes than (a) and (b) above, only complete Section II (c);
   (d) accelerators and neutron generators, only complete Section II (d).
3. Section III must be completed only in respect of an application for a premises licence.
4. Ignore the small figures in brackets or blocked, e.g.:

   My file Reference No.

4		*
—	(15)	—

5. Where space provided for writing is insufficient, attach additional sheets of paper.
6. Mark the appropriate box with an "X", if applicable, e.g.:

X	02	*

7. Supply the information in the appropriate space provided, if applicable, e.g.:

1	1.2.0.0.....	*
2	1.6.1.1.....	*

8. Items 9 and 10: State the name and address under which applicant conducts his business or practises his profession; or
   Item 11: State the name and address of the establishment for which the applicant is the controlling authority pursuant to regulation III.3 (g).

H 100.02

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

RADIATION CONTROL

APPLICATION FOR A PRODUCT AND/OR PREMISES LICENCE: ANNEXURE A; SECTION 11 (a)

MEDICAL DIAGNOSTIC X-RAY UNIT

Instructions:

This form, if applicable, must be attached to Section 1 of the relevant application form for a product and/or premises licence.

For office use only

1. Form code/No. | * | A, N (10)

Date of completion of this form

2. Day | Month | Year | * | N (6)

3. Surname of applicant | * | A (24)

4. Initials of applicant | * | (4)

5. My file reference No. | * | A, N (15)

6. For office use only
   Product licence No. | *

Identification of product:

7. Model .....

8. Control panel serial No. .....

9. Datum van vervaardiging

10. Naam van vervaardiger

11. Land van vervaardiging *

12. Installasie: Mobiele 1 | Vaste 2 *

Tipe eenheid:

13. (a) Enkelfase: Selfgelykrigting 1 | Halfgolfgelykrigting 2 | Volgolfgelykrigting 3

of (b) Driefase: Sespuls 4 | Twaalfpuls 5 | Konstante potensiaal 6

of (c) Kondensatorenergieberging 7 *

14. (a) Radiografies 1

of (b) Fluoroskopies 2

of (c) Radiografies en fluoroskopies gekombineerd 3

of (d) Foto- fluorografies: Filmgrootte: 35 mm 4 | 70 mm 5 | 100 mm 6 *

15. Vir radiografiese fasiliteit alleen of gekombineerd dui aan of die eenheid toegerus is vir:

'Bucky-' radiografie 1 | Reeksradiografie 2 | Tomografie 3 *

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

(a) Fluoreserende skerm: 1 *

(b) Beeldversterker: 2

(i) Kamera vir afsonderlike opnames: 70 mm 01 | 100 mm 02

(ii) Optiese kyker 03

(iii) Televisie: 04

9. Date of manufacture

10. Name of manufacturer

11. Country of manufacture *

12. Installation: Mobile 1 | Fixed 2 *

Type of unit:

13. (a) Single phase: Self-rectified 1 | Half-wave rectified 2 | Full-wave rectified 3

or (b) Three phase: Six pulse 4 | Twelve pulse 5 | Constant potential 6

or (c) Capacitor energy storage 7 *

14. (a) Radiographic 1

or (b) Fluoroscopic 2

or (c) Radiographic and Fluoroscopic combined 3

or (d) Photo- fluorographic: Filmsize: 35 mm 4 | 70 mm 5 | 100 mm 6 *

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

Bucky radiography 1 | Serial radiography 2 | Tomography 3 *

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

(a) Fluorescent screen: 1 *

(b) Image intensifier: 2

(i) Camera for spot filming: 70 mm 01 | 100 mm 02

(ii) Optical viewer 03

(iii) Television: 04

(iv) Kinemakamera:

16 mm	35 mm	Kontinue werking	Gepulseerde werking
05	06	07	08

Spesifiseer maksimum raamspoed: .....rame per sekonde. *

TEGNIEKFAKTORE

17. Limietwaardes waarteen die buis kan funksioneer in terme van tegniekfaktore:

(a) Vir kapasitor-energiebergingsapparaat

(i) Piek-buispotensiaal	(ii) (1) Maksimum hoeveelheid lading	*of* (2) Kondensatorkapasiteit
01 .....kV	.....mA	.....μF *

(b) Vir gepulseerde apparaat

(i) Piek-buispotensiaal	(ii) Maksimum aantal X-straalpulse
02 .....kV	..... *

(c) Vir ander apparaat:

(i) Piekbuispotensiaal	(ii) (1) Maksimum buisstroom	en (2) Maksimum beligtingstyd	*of* (3) Maksimum produk van buisstroom en beligtingstyd
03 .....kV	.....mA	.....sek.	.....mAs

ANDER BEDRYFSFAKTORE

18. Filtrasie:
(a) Inherente filter..... 1 .....mm Al ekw.
(b) Bygevoegde filter..... 2 .....mm Al ekw.
(c) Totale filter..... 3 .....mm Al ekw. *

19. Is die toestel ingerig vir outomatiese beligting:

Nee 1

Fototydskakelaar of ionisasie-tipe:

Ja 2 3 4 *

20. Inligting in verband met X-straalbuis:

(a) Stilstaande anode of roterende anode:

1 2

(b) Lugverkoel of olieverkoel:

3 4

(c) Roosterbeheer.... Ja 5

Nee 6

(d) Skerpfokus en/of breë fokus:

7 8 *

(iv) Cine camera:

16 mm	35 mm	Continuous operation	Pulsed operation
05	06	07	08

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

TECHNIQUE FACTORS

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

(a) For capacitor energy storage equipment

(i) Peak tube potential	(ii) (1) Maximum quantity of charge	*or* (2) Condensor capacity
01 .....kV	.....mA	.....μF *

(b) For pulsed equipment:

(i) Peak tube potential	(ii) Maximum number of X-ray pulses:
02 .....kV	..... *

(c) For other equipment:

(i) Peak tube potential	(ii) (1) Maximum tube current	and (2) Maximum exposure time	*or* (3) Maximum product of tube current and exposure time
03 .....kV	.....mA	.....sec.	.....mAs

OTHER OPERATIONAL CHARACTERISTICS

18. Filtration:
(a) Inherent filter..... 1 .....mm Al equ.
(b) Added filter..... 2 .....mm Al equ.
(c) Total filter..... 3 .....mm Al equ. *

19. Is unit equipped with automatic exposure device:

No 1

Phototimer or ionisation type:

Yes 2 3 4 *

20. Information regarding X-ray tube:

(a) Stationery anode or rotating anode:

1 2

(b) Air-cooled or oil cooled:

3 4

(c) Grid controlled.... Yes 5

No 6

(d) Fine focus and/or broadfocus:

7 8 *

21. Tipe kollimasie:

(a) Keëls	(b) Enkelvoudige ligdiafragma	(c) Multibladlug-diafragma
1	2	3 *

22. Is die eenheid toegerus met 'n sisteem wat die dosis aan die pasiënt kan meet:

Ja	Nee
1	2 *

23. Rigtings waarin beligting kan geskied:

(a) Enkelrigting	(b) Twee rigtings	(c) Meer rigtings
1	2	3

(Indien moontlik, dui hierdie rigtings aan op die diagram van die perseel).

BEOOGDE GEBRUIK VAN EENHEID

24. Blootstelling van mense vir mediese doeleindes:

		Geraamde aantal ondersoeke per week	Beskryf ondersoek kortliks	
Radiografie van die:				
Kop.....	01			*
Werwelkolom...	02			*
Bekken.....	03			*
Ekstremiteite....	04			*
Radiografiese ondersoeke van organe:				
Met kontrasmedia	05			*
Sonder kontra-media	06			*
Tandheelkundige Radiografie	07			*
Fluoroskopiese ondersoeke	08			*
Spesiale onder-soeke	09			*
Ander ondersoeke	10			*

25. Blootstelling van mense vir nie-mediese doeleindes. Die rede(s) waarom sodanige blootstelling noodsaaklik is:

.....

.....

.....

.....

.....

26. 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

21. Type of collimations:

(a) Cones	(b) Singleleaf Collimation	(c) Multileaf Collimation
1	2	3 *

22. Is unit equipped with a system for measuring the dose to the patient?:

Yes	No
1	2 *

23. Directions in which exposure can be made:

(a) One direction only	(b) Two directions	(c) More directions
1	2	3

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

INTENDED USES OF UNIT

24. Exposure of human beings for medical purposes:

		Estimated number of examinations per week	Briefly specify examination	
Radiograph of the:				
Head.....	01			*
Spine.....	02			*
Pelvis.....	03			*
Extremities.....	04			*
Radiographic examinations of organs:				
With contrast media	05			*
Without contrast media	06			*
Dental radio-graphy	07			*
Fluoroscopic ex-aminations	08			*
Special examina-tions	09			*
Other examina-tions	10			*

25. Exposure of human beings for non-medical purposes. The reason(s) why such exposures are considered necessary:

.....

.....

.....

.....

.....

26. I hereby certify that I have investigated the matter and there are 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

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

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

28. 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(e) werkers	1		
(b) Lede van die publiek...			

29. Beskryf die tipe ondersoek(e):

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

30. Geraamde maksimum dosis wat elkeen van die volgende gedurende sodanige blootstelling sal ontvang:

		Geraamde maksimum dosis
(a) Hele liggaam.....	01	
(b) Geslagskliere.....	02	
(c) Bloedvormende organe.....	03	
(d) Ooglens.....	04	
(e) Vel.....	05	
(f) Ander interne organe wat aan die nuttige bundel blootgestel word	06	

31. Watter moniteringstoerusting sal gebruik word om die stralingsdosis te meet wat elke persoon tydens sodanige blootstelling ontvang?.....

Verklaring:

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

.....
Handtekening van applikant

H 100.03

REPUBLIEK VAN SUID-AFRIKA

DEPARTEMENT VAN GESONDHEID

AANSOEK OM 'N PRODUK- EN/OF PERSEELLISENSIE: BYLAE A: SEKSIE II (b)

MEDIES TERAPEUTIESE X-STRAALEENHEID

Instruksies:

Hierdie vorm, indien van toepassing, moet aan Seksie I van die betrokke vorm van aansoek om 'n produk- en/of perseellisensie geheg word.

Slegs vir kantoorgebruik Vormkodenommer		Datum van invulling van hierdie vorm			
1. H 100.03 *	2.	Dag	Mnd.	Jr.	*
(10)		N (6)			

27. If an alternative procedure does exist give reasons for not using it:

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

28. 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	1		
(b) Members of public.....			

29. Describe the type of examination(s):

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

30. Estimate the maximum dose received by each of the following during such exposure:

		Estimated maximum radiation dose
(a) Whole body.....	01	
(b) Gonads.....	02	
(c) Blood-forming organs.....	03	
(d) Eye-lens.....	04	
(e) Skin.....	05	
(f) Other internal organs exposed to the useful beam	06	

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

Declaration:

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

.....
Signature of applicant

H 100.03

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

APPLICATION FOR A PRODUCT AND/OR PREMISES LICENCE: ANNEXURE A: SECTION II (b)

MEDICAL THERAPEUTIC X-RAY UNIT

Instructions:

This form, if applicable, must be attached to Section I of the relevant application form for a Product and/or Premises Licence.

For office use only Form No.		Date of completion of this form			
1. H 100.03 *	2.	Day	Month	Year	*
(10)		N (6)			

3. Familienaam van applikant
A (24)

4. Voorletters van applikant
(4)

Slegs vir kantoorgebruik

5. My lêerverwysingsnommer
A, N (15)

6. Produklisensienommer
A, N (10)

Identifikasie van produk

7. Model
(15)

8. Beheerpaneelreeksnommer
(15)

9. Datum van vervaardiging
(6)

10. Naam van vervaardiger
(24)

11. Land van vervaardiging
(15)

Tipe eenheid

12. Installasie: Mobiele 1; Vaste 2

13. Veld: Pendulum- of stilstaande: 1; 2

14. Gelykrigting: Selfgelykrigting 1; Halfgolfgelykrigting 2; Volgolfgelykrigting 3; Konstante potensiaal 4

15. Tipe terapie: Kontak- 1; Diep X-straal- 2

16. Tegniekfaktore

Limietwaardes waarteen die buis kan funksioneer in terme van tegniekfaktore

Piek-buispotensiaal		Maksimum buisstroom	
1 kV	*	2 mA	*

3. Surname of applicant
A (24)

4. Initials of applicant
(4)

For office use only

5. My File Ref. No.
A, N (15)

6. Product Licence No.
A, N (10)

Identification of product

7. Model
(15)

8. Control Panel Serial No.
(15)

9. Date of manufacture
(6)

10. Name of manufacturer
(24)

11. Country of manufacture
(15)

Type of unit

12. Installation: Mobile 1; Fixed 2

13. Field: Pendulum or Stationary: 1; 2

14. Rectification: Self-rectified 1; Half-wave rectified 2; Full-wave rectified 3; Constant potential 4

15. Type of therapy: Contact 1; Deep X-ray 2

16. Technique factors

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

Peak tube potential		Maximum tube current	
1 kV	*	2 mA	*

17.

Tipe kollimasie				
Ligdiafragma		Toedieners		
	1		2	*

18.

Is eenheid toegerus met				
Ingeboude monitering-sisteem?	Filter-veiligheid skakelaar?	Stabilisasie van toevoer-spanning?	Stabilisasie van buis-spanning?	Stabilisasie van buis-stroom?
01	02	03	04	05

19. Tipe terapie		20. Gemiddelde aantal behandelings per week
Oppervlakkige X-straal terapie	1	01
		02
		03
Diep X-straal.....	2	01
		02
		03

21. Verskillende kombinasies van buisspanning, buisstroom, filter en FVA-waardes wat gebruik word

kV	mA	Filter	FVA

22. Ooreenstemmende kwaliteit van straling in terme van HVD	23. Ooreenstemmende opbrengs in lug	
		*
		*
		*
		*
		*
		*

Indien gestabiliseer, dui aan die persentasie fluktuasie in opbrengs

06		*

Verklaring:

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

.....

Handtekening van applikant

17.

Type of collimation				
Light beam diaphragm		Applicators		
	1		2	*

18.

Is unit equipped with				
built-in monitoring system?	filter safety switch?	mains voltage stabilization?	tube voltage stabilization?	tube current stabilization?
01	02	03	04	05

19. Type of therapy		20. Average number of treatments per week
Superficial X-ray therapy..	1	01
		02
		03
Deep X ray therapy.....	2	01
		02
		03

21. Different combinations of tube voltage, tube current, filter and FSD values used

kV	mA	Filter	FSD

22. Related quality of radiation in terms of HVL	23. Related output obtained in air	
		*
		*
		*
		*
		*
		*

If stabilized specify percentage fluctuation in output

06		*

Declaration:

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

.....

Signature of applicant

H100.04

REPUBLIEK VAN SUID-AFRIKA

DEPARTEMENT VAN GESONDHEID

STRALINGSBEHEER

AANSOEK OM 'N PRODUK- EN/OF PERSEEL-LISENSIE: BYLAE A: SEKSIE 11 (C)

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

Instruksies:

Hierdie vorm, indien van toepassing, moet aan Seksie 1 van die betrokke vorm van aansoek om 'n produk- en/of perseellisensie geheg word.

1. Slegs vir kantoorgebruik

Vormkodenommer	
H100.04	*

A,N (10)

Datum van invulling van hierdie vorm

2.

Dag	Mnd.	Jr.	
|	|		*

N (6)

3. Familienaam van applikant

	*

A (24)

4. Voorletters van applikant

	*

(4)

5. My Lêerverwysingno.

	*

A,N (15)

6. Slegs vir kantoorgebruik

Produklisensieno.

	*

A,N (10)

7. Model

	*

A,N (15)

8. Beheerpaneel-reeksnommer

	*

A,N (15)

9. Datum van vervaardiging

	*

N (6)

10. Naam van vervaardiger

	*

A,N (30)

11. Land van vervaardiging

	*

A (15)

12. TIPE EENHEID

Installasie				
Mobiele		Vaste		
	1		2	*

13.

Enkelfase								
Selfgelykrigting		Halfgolfgelykrigting		Volgolfgelykrigting		Konstante potensiaal		
	1		2		3		4	*

14.

Driefase						
Sespuls		Twaalfpuls		Konstante potensiaal		
	1		2		3	*

H100.04

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

RADIATION CONTROL

APPLICATION FOR A PRODUCT AND/OR PREMISES LICENCE: ANNEXURE A: SECTION 11 (C)

X-RAY UNITS USED FOR INDUSTRIAL, RESEARCH, EDUCATIONAL OR ANY OTHER NON-MEDICAL PURPOSES

Instructions:

This form, if applicable, must be attached to Section 1 of the relevant application form for a product and/or premises licence.

1. For office use only

Form Code No.	
H100.04	*

A,N (10)

Date of completion of this form

2.

Day	Month	Year	
|	|		*

N (6)

3. Surname of applicant

	*

A (24)

4. Initials of applicant

	*

(4)

5. My File Reference No.

	*

A,N (15)

6. For office use only

Product Licence No.

	*

A,N (10)

7. Model

	*

A,N (15)

8. Control Panel Serial No.

	*

A,N (15)

9. Date of manufacture

	*

N (6)

10. Name of manufacturer

	*

A,N (30)

11. Country of manufacture

	*

A (15)

12. TYPE OF UNIT

Installation				
Mobile		Fixed		
	1		2	*

13.

Single phase								
Selfrectified		Halfwave rectified		Full-wave rectified		Constant potential		
	1		2		3		4	*

14.

Three phase						
Six pulse		Twelve pulse		Constant potential		
	1		2		3	*

TEGNIEKFAKTORE

Limietwaardes waarteen die buis kan funksioneer in terme van tegniekfaktore:

15.

Vir kapasitor-energiebergingsapparaat							
(a) Piek-buispotensiaal		(b) (i) Maksimum hoeveelheid lading		OF (ii) Kondensatorkapasiteit			
1	kV	2	mA	3	μF	*	

16.

Vir gepulseerde apparaat			
Piek-buispotensiaal		Maksimum aantal X-straal-pulse	
1	kV	2	

17.

Vir ander toerusting (Vul in vierkante 2 en 3 of 4)							
1	Piek-buispotensiaal	2	Maksimum buisstroom en	3	Maksimum beligtingstyd	4	Maksimum produk van buisstroom en beligting
	kV		mA		sek		mAs

ANDER BEDRYFSFAKTORE

Tipe X-straalbuis:

18. Naam van vervaardiger *

(30)

19. Kode of reeksnommer * (15)

20. Skryfmateriaal * (7)

21. Hoek van bundel * (4)

22. Aantal bundel-uitgange * (4)

23. Beskryf die buisomhulsel:

.....

.....

.....

.....

.....

*

24. Gee besonderhede in verband met filtrasie:

.....

.....

.....

.....

.....

*

25. Dui aan die tipe kolimasie:

.....

.....

.....

.....

.....

*

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

.....

.....

.....

.....

.....

*

TECHNIQUE FACTORS

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

15.

For capacitor energy storage equipment							
(a) Peak tube potential		(b) (i) Maximum quantity of charge		OR (ii) Condensor capacity			
1	kV	2	mA	3	μF	*	

16.

For pulsed equipment			
Peak tube potential		Maximum number of X-ray pulses	
1	kV	2	

17.

For other equipment (Complete boxes 2 and 3 or 4)							
1	Peak tube potential	2	Maximum tube current and	3	Maximum exposure time	4	Maximum product of tube current and exposure time
	kV		mA		sec		mAs

OTHER OPERATIONAL CHARACTERISTICS

Type of X-ray tube:

18. Name of manufacturer * (30)

19. Code or serial No. * (15)

20. Target material * (7)

21. Angle of beam * (4)

22. Number of beam ports * (4)

23. Describe the tube housing utilized.

.....

.....

.....

.....

.....

*

24. State particulars regarding filtration.

.....

.....

.....

.....

.....

*

25. Indicate type of colimation.

.....

.....

.....

.....

.....

*

26. Briefly mention any apparatus utilized in beam alignment.

.....

.....

.....

.....

.....

*

BEOOGDE GEBRUIK VAN EENHEID

27. 1. Industrieël	2. Navorsing	3. Opleiding	4. Ander (spesifiseer)	
				*
(70)	(70)	(70)	(70)	

Verklaring:

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

.....
Handtekening van applikant

H100.05

REPUBLIEK VAN SUID-AFRIKA

DEPARTEMENT VAN GESONDHEID

STRALINGSBEHEER

AANSOEK OM 'N PRODUK- EN/OF PERSEELLISENSIE: BYLAE A: SEKSIE 11 (d)

VERSNELLER OF NEUTRON-GENERATOR

Instruksies:

1. Hierdie vorm, indien van toepassing, moet aan Seksie 1 van die betrokke vorm van aansoek om 'n produk- en/of perseellisensie geheg word.

2. Items 14 tot 18 moet vir alle versnellers en neutrongenerators ingevul word.

3. Items 19 tot 24 hoef slegs vir mediese versnellers en mediese neutrongenerators ingevul te word.

Slegs vir kantoorgebruik:

1. Vormkodenommer: H 100.05 * — A,N(10)

2. Datum van invulling van hierdie vorm: Dag | Mnd. | Jr. | | | | * — N(6)

3. Familienaam van applikant * — A(24)

4. Voorletters van applikant * — (4)

Slegs vir kanoorgebruik:

5. My lêerverwysingsnommer * — A,N(15)

6. Produklisensienommer *

IDENTIFIKASIE VAN PRODUK

7. Elektronversneller [ ] 1 Swaardeeltjieversneller [ ] 2

Neutrongenerator..... [ ] 3 *

8. Tipe versneller * — A,N(15)

9. Model * — A,N(15)

10. Beheerpaneel-reeksnommer * — A,N(15)

11. Datum van vervaardiging * — N(6)

INTENDED USES OF UNIT

27. 1. Industrial	2. Research	3. Educational	4. Other (specify)	
				*
(70)	(70)	(70)	(70)	

Declaration:

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

.....
Signature of applicant

H100.05

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

RADIATION CONTROL

APPLICATION FOR A PRODUCT AND/OR PREMISES LICENCE:

ANNEXURE A; SECTION 11 (d)

ACCELERATOR OR NEUTRON GENERATOR

Instructions:

1. This form, if applicable, must be attached to Section 1 of the relevant application form for a Product and/or Premises Licence.

2. Items 14 to 18 must be completed for all accelerators and neutron generators.

3. Item 19 to 24 need only be completed for medical accelerators and medical neutron generators.

For office use only

1. Form Code No.: H 100.05 * — A,N(10)

2. Date of completion of this form: Day | Month | Year | | | | * — N(6)

3. Surname of applicant * — A(24)

4. Initials of applicant * — (4)

For office use only:

5. My File Reference No. * — A,N(15)

6. Product Licence No. *

IDENTIFICATION OF PRODUCT

7. Electron accelerator [ ] 1 Heavy particle accelerator [ ] 2

Neutron generator..... [ ] 3 *

8. Type of accelerator * — A,N(15)

9. Model * — A,N(15)

10. Control Panel Serial No. * — A,N(15)

11. Date of manufacture * — N(6)

12. Naam van vervaardiger | * | A,N(30)

13. Land van vervaardiging | * | A(15)

BEDRYFSFAKTORE

	14. Primêre deeljtie(s) wat versnel word	15. Energie-gebied	16. Piek- gemiddelde bundel-stroom	17. Skyf-materiaal
1				
2				
3				
4				

	18. Skyfdikte	19. Energie-waardes van primêre bundel wat vir radio-terapie gebruik word	20. Ooreenstem-mende gegewe dosistempo's, van primêre bundel vir (10X10)cm-veldgrootte	21. Sekondêre straling wat geprodusser word
1				
2				
3				
4				

	22. Energiewaardes van sekondêre bundel wat vir radioterapie gebruik word	23. Ooreenstem-mende gegewe dosistempo's van sekondêre bundel vir (10X10) cm-veldgrootte	24. Neutronvloed op gegewe afstand vanaf skyf
1			
2			
3			
4			

25. Aantal bundeluitgange: ..... *

26. Beskryf kortliks die tipe kollimasie..... *

BEOOGDE GEBRUIKE VAN EENHEID

27.

Medies	Navorsing	Industriëel	Ander (spesifiseer)

*

Verklaring:

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

.....
Handtekening van applikant

12. Name of manufacturer | * | A,N(30)

13. Country of manufacture | * | A(15)

OPERATIONAL CHARACTERISTICS

	14. Primary particle(s) accelerated	15. Energy range	16. Peak average beem current	17. Target material
1				
2				
3				
4				

	18. Target thickness	19. Energy values of primary beam used for radiotherapy	20. Related given dose rates of prima-ry beam for (10X10) cm field size	21. Secondary radiation produced
1				
2				
3				
4				

	22. Energy values of secondary beam used for radiotherapy	23. Related given dose rates of secondary beam for (10X10)cm field size	24. Neutron flux at specified distance from target
1			
2			
3			
4			

25. Number of beam ports: ..... *

26. Brieffly describe type of collimation..... *

INTENDED USES OF UNIT

27.

Medical	Research	Industrial	Other (specify)

*

Declaration:

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

.....
Signature of applicant

H100.06

REPUBLIEK VAN SUID-AFRIKA

DEPARTEMENT VAN GESONDHEID

STRALINGSBEHEER

AANSOEK OM 'N PRODUK- EN/OF PERSEELLISENSIE: BYLAE A: SEKSIE III

PERSEEL

Instruksies:

1. Hierdie vorm, indien van toepassing, moet aan Seksie I van die betrokke vorm van aansoek om 'n produk- en/of perseellisensie geheg word.

2. Items 7 en 8: As 'n produklisensie uitgereik is vir die elektroniese produk waarvoor 'n perseellisensie vereis word, vermeld die lisensienommer en datum van uitreiking; indien nie, heg aansoek om 'n produklisensie hieraan.

3. Item 14: Die beskrywing en plan moet in die besonder verwys na die stralingsveiligheid van die afskorting of kamer waarin die elektroniese produk gehuisves word, of sal word.

Slegs vir kantoorgebruik:

1. Vormkodenommer: H100.06 * — A, N (10)

Datum van invulling van hierdie vorm:

2. Dag | Mnd. | Jr. * — N (6)

3. Familienaam van applikant * — A (24)

4. Voorletters van applikant * — (4)

Slegs vir kantoorgebruik:

5. My lêerverwysingsnommer — A, N (15)

6. Perseellisensienommer — A, N (10)

IDENTIFIKASIE VAN PRODUK WAARVOOR OM 'N PERSEELLISENSIE AANSOEK GEDOEN WORD

7. Produklisensieno. *

Datum van uitreiking van lisensie:

8. Dag | Mnd. | Jr. *

IDENTIFIKASIE VAN PERSEEL

Tipe perseel:

9.

	Terrein		Gebou		Ander struktuur		Motorvoertuig
	01		02		03		04
	Trein		Skip		Vliegtuig		Ander voertuig
	05		06		07		08 *

10.

Erf No.		Plot No.		Voertuigregistrasieno.
1		2		3 *

H100.06

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

RADIATION CONTROL

APPLICATION FOR A PRODUCT AND/OR PREMISES LICENCE: ANNEXURE A: SECTION III

PREMISES

Instructions:

1. This form, if applicable, must be attached to Section I of the relevant application for a Product and/or Premises Licence.

2. Items 7 and 8: If a Product Licence has been issued for the electronic product for which a Premises Licence is required, state the Licence No. and the date of issue; if not, attach application for such Product Licence.

3. Item 14: The description and plan shall particularly refer to the radiation safety of the enclosure or room in which the electronic product is, or is to be, housed.

For office use only:

1. Form Code No.: H100.06 * — A, N (10)

Date of completion of this form:

2. Day | Mnth | Year * — N (6)

3. Surname of applicant * — A (24)

4. Initials of applicant * — (4)

For office use only:

5. My File Reference No. — A, N (15)

6. Premises Licence No. — A, N (10)

IDENTIFICATION OF PRODUCT FOR WHICH APPLICATION FOR PREMISES LICENCE IS FILED

7. Product Licence No. *

Date of issue of licence:

8. Day | Mnth | Year *

IDENTIFICATION OF PREMISES

Type of premises:

9.

	Land		Building		Other structure		Motor vehicle
	01		02		03		04
	Train		Ship		Aircraft		Other vehicle
	05		06		07		08 *

10.

Erf No.		Plot No.		Vehicle registration No.
1		2		3 *

A, N (15)

11. Adres van perseel:

.....

.....

.....

.....

.....

.....

*

A, N (120)

12. Inligting om installasie te lokaliseer, bv. Blok C, Kamer 215, Tweede vloer:

.....

.....

.....

.....

.....

TIPE INSTALLASIE

13. Ingeslote installasie: [ ] 1 Oop installasie: [ ] 2 *

VIR INGESLOTE INSTALLASIE

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

(a) Konstruksie

.....

.....

.....

.....

.....

(b) Grendels

.....

.....

.....

.....

.....

(c) Uitleg van toerusting

.....

.....

.....

.....

.....

(d) Waarskuwingtekens

.....

.....

.....

.....

.....

(e) Stralingskerms

.....

.....

.....

.....

.....

.....

.....

(f) Enige ander beskermingsmaatreëls en -toestelle

.....

.....

.....

.....

.....

.....

.....

.....

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

VIR OOP INSTALLASIE

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

*

17. Beskermingsmaatreëls ten opsigte van oop installasies:

(a) Dui aan die afstand vanaf die elektroniese produk waarbinne ongemagtigde persone nie toegelaat word nie.

.....

*

(b) Watter positiewe maatreëls word getref om hierdie graad van isolasie te handhaaf.

.....

.....

.....

.....

.....

*

11. Address of premises:

.....

.....

.....

.....

.....

*

A, N (120)

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

.....

.....

.....

.....

.....

TYPE OF INSTALLATION

13. Enclosed installation: [ ] 1 Open installation: [ ] 2 *

FOR ENCLOSED INSTALLATION

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

(a) Construction

.....

.....

.....

.....

.....

(b) Interlocks

.....

.....

.....

.....

.....

(c) Layout of equipment

.....

.....

.....

.....

.....

(d) Warning signals

.....

.....

.....

.....

.....

(e) Radiation shields

.....

.....

.....

.....

.....

.....

.....

(f) Any other protection measures and devices

.....

.....

.....

.....

.....

.....

.....

.....

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

FOR OPEN INSTALLATION

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

*

17. Protection measures with regard to open installations:

(a) Indicate the distance from the electronic product with which unauthorised persons should not be allowed to enter.

.....

*

(b) Indicate positive measures taken to maintain this degree of isolation:

.....

.....

.....

.....

.....

*

(c) Verstrek inligting om aan te dui dat voldoende beskerming aan die betrokke stralingswerkers verleen word:

.....
.....
.....
.....
.....
.....
..... *

Verklaring:

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

.....
Handtekening van applikant

DEPARTEMENT VAN GESONDHEID

BYLAE B

AANSOEK OM DIE WYSIGING OF WEGDOEN VAN 'N GELISENSIËERDE ELEKTRONIESE PRODUK OF WYSIGING VAN 'N GELISENSIËERDE PERSEEL

Die Sekretaris van Gesondheid
Privaatsak X88
Pretoria

Instruksies:

1. Item 9: Alle veranderings ten opsigte van inligting wat voorheen in die aansoek om 'n produk- en/of perseellisensie verstrek is, moet volledig beskryf word.

2. Item 11: Vermeld of die applikant voornemens is om die elektroniese produk weg te doen deur dit aan 'n ander persoon oor te dra of deur dit te demonteer.

3. Item 12: Indien die applikant voornemens is om die elektroniese produk as sodanige weg te doen, moet die persoon aan wie dit oorgedra word geïdentifiseer word deur sy naam, adres en die nommer van die produklisensie wat aan hom uitgereik is en waarkragtens hy die nuwe lisensiehouer word.

IDENTIFIKASIE VAN HOUER

1. Familienaam.....
2. Voorname.....
3. Adres.....
.....

TIPE AANSOEK (Dui aan met X)

4. Wysiging van elektroniese produk..... ☐
5. Wysiging van perseel..... ☐
6. Wysiging van uitleg van toerusting..... ☐
7. Wegdoen van elektroniese produk..... ☐
8. Lisensienommer van betrokke elektroniese produk of perseel
.....

WYSIGING VAN ELEKTRONIESE PRODUK OF PERSEEL

9. 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).....
.....
.....
.....
.....
.....
.....

10. In watter mate behels die wysiging groter stralingsgevaar:
.....
.....
.....
.....
.....
.....
.....

WEGDOEN VAN ELEKTRONIESE PRODUK

11. Word die elektroniese produk—

gedemonteer.. ☐ of oorgedra... ☐ (Dui aan met X)

(c) Supply information to indicate that radiation workers involved will be adequately protected:

.....
.....
.....
.....
.....
..... *

Declaration:

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

.....
Signature of applicant

DEPARTMENT OF HEALTH

ANNEXURE B

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

The Secretary for Health
Private Bag X88
Pretoria

Instructions:

1. Item 9: This description shall include all amendments to the information previously submitted in the application for a Product and/or Premises Licence.

2. Item 11: State whether the applicant intends to dispose of the electronic product by transferring it to another person or by dismantling it.

3. Item 12: If the applicant intends to dispose of the electronic product as such, the subsequent transferee shall be identified by his name, address and the number of the Product Licence issued, under which he is to become the new holder.

IDENTIFICATION OF HOLDER

1. Surname.....
2. Names.....
3. Address.....
.....

TYPE OF APPLICATION (Mark with an X)

4. Modification of electronic product..... ☐
5. Modification of premises..... ☐
6. Modification of layout of equipment..... ☐
7. Disposal of electronic product..... ☐
8. No. of licence of electronic product or premises involved.....
.....

MODIFICATION OF ELECTRONIC PRODUCT OR PREMISES

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

10. To what extent does the modification entail increased radiation danger:
.....
.....
.....
.....
.....
.....
.....

DISPOSAL OF ELECTRONIC PRODUCT

11. Is electronic product to be—

Dismantled..... ☐ or transferred ☐ (Mark with an X)

12. Identifikasie van persoon aan wie elektroniese produk oorgedra word:
(a) Familienaam.....
(b) Voorname.....
(c) Adres.....
(d) Produklisensieno.....

Verklaring:

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

Datum..... Handtekening.....
Naam (in drukletters).....
.....

DEPARTEMENT VAN GESONDHEID

BYLAE C

SEKSIE 1

REGISTRASIE: STRALINGSWERKER

[Vereis ingevolge Regulasie 1114 (a)]

(Vir instruksies sien keersy)

IDENTIFIKASIE VAN STRALINGSWERKER

1. Familienaam.....
2. Voorname.....
3. Geboortedatum.....
4. Identiteitsnommer.....
5. Ras.....
6. Geslag.....
7. Beroep:
(a) Aard.....
(b) Omvang van stralingswerk.....
.....
(c) Voltyds/deeltyds (skrap wat nie van toepassing is nie).
8. (a) Datum van aanvanklike indienstreding.....
(b) Datum van huidige indienstreding.....
9. Akademiese kwalifikasies en enige toepaslike opleiding en ondervinding.....
.....
.....
10. Verslag van vorige diens:
(a) Datum van bedanking.....
(b) Datum van laaste mediese ondersoek.....
(c) Mediese verslag: Het u ondersoek en waarneming u daarvan oortuig dat bogenoemde persoon goeie gesondheid geniet en vry van enige liggaams- of verstandgebrek, siekte of swakheid is wat hom/haar moontlik in die behoorlike uitvoering van sy/haar pligte as 'n stralingswerker kan strem?

Ja/Nee

Handtekening.....
Naam (in drukskrif).....
Aangestelde geneesheer

(d) Geakkumuleerde stralingsdosis vir leeftyd.....
(e) Datum van laaste meting.....
(f) Mediese redes vir beëindiging van diens (indien van toepassing).....
.....
(g) Enige ander toepaslike opmerkings.....
.....

Verklaring:

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

Adres van houer..... Handtekening van houer.....
..... Naam (in drukletters).....
..... Datum.....

Instruksies:

1. Vir stralingswerkers wat onlangs indiens geneem is, moet die houer items 1 tot 9 van hierdie verslag invul. By bedanking moet die houer die werker voorsien van 'n dergelike verslag waarvan items 1 tot 10 ingevul moet word. Voordat die stralingswerker weer in diens tree, moet hy die houer van hierdie verslag voorsien vir inskrywing in laasgenoemde se register.

2. Item 7 (a) (b): Dui die beroep van die stralingswerker aan en vermeld kortliks die werk wat deur hom verrig word, byvoorbeeld:

(a) Radiografis, tegnikus, ens., vir
(b) diagnostiese, terapeutiese of industriële radiografie.

3. Item 9: Verskaf voldoende bewys dat die werker aan die bepalings van regulasie 111 (4) (i) (2).

12. Identification of transferee:
(a) Surname.....
(b) Names.....
(c) Address.....
(d) Product Licence No.....

Declaration:

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

Date..... Signature.....
Name (block letters).....
.....

DEPARTMENT OF HEALTH

ANNEXURE C

SECTION 1

REGISTRATION: RADIATION WORKER

[Required in terms of Regulation 1114 (a)]

(For Instructions see overleaf)

IDENTIFICATION OF RADIATION WORKER

1. Surname.....
2. Names.....
3. Date of birth.....
4. Identity number.....
5. Race.....
6. Sex.....
7. Occupation:
(a) Nature.....
(b) Scope of radiation work.....
.....
(c) Full-time/Part-time (delete what is not applicable).
8. (a) Date of initial employment.....
(b) Date of present employment.....
9. Academic qualifications and any relevant training and experience
.....
.....
10. Record of previous service:
(a) Date of resignation.....
(b) Date of last medical examination.....
(c) Medical report: From your examination and observation, 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 a radiation worker?

Yes/No

Signature.....
Name (block letters).....
Appointed doctor

(d) Lifetime accumulated radiation dose.....
(e) Date of last measurement.....
(f) Medical reasons for termination of service (if applicable)
.....
(g) Any other applicable remarks.....
.....

Declaration:

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

Address of holder..... Signature of holder.....
..... Name (block letters).....
..... Date.....

Instructions:

1. For newly employed radiation workers, the holder must complete items 1 to 9 of this record. On resignation the holder must supply the worker with a similar record of which items 1 to 10 must be completed. Prior to re-employment the radiation worker shall furnish the holder with this record for entry in his register.

2. Item 7 (a) (b): Indicate the occupation of the radiation worker, and briefly state the work done by him, e.g.:

(a) Radiographer, technician, etc., for
(b) diagnostic, therapeutic or industrial radiography.

3. Item 9: Provide adequate proof that the worker complies with the provisions of regulation 111 (4) (i) (2).

DEPARTEMENT VAN GESONDHEID

BYLAE C

SEKSIE II

GENEESKUNDIGE VERSLAG (vir instruksies sien keersy)

IDENTIFIKASIE VAN STRALINGSWERKER

(1) Familienaam.....

(2) Voorname.....

(3) Identiteitsno.....

ONDERSOEK

(4) Bloed:

Rooiseltelling.....µl
Witseltelling.....µl
Plaatjies.....
Hemoglobien.....g/100 ml

Differensiële witseltelling:

Granulosiete:

(a) Neutrofiele.....
(b) Eosinofiele.....
(c) Basofiele.....

Monosiete.....
Limfosiete.....
Abnormale selle.....

(5) Oë:

(a) Ooglens.....
(b) Gesigsvelde.....

(6) Urien:

(a) Albumien.....
(b) Suiker.....
(c) Mikroskopies.....
(d) Radioaktiwiteit in urien (indien nodig).....
.....
.....

(7) Hande:

Vel (a) Telaangiëktasie.....
(b) Hiperkeratose.....
(c) Atrofie.....

Velaanhangsels:

(a) Sweetkliere.....
(b) Hare.....
(c) Naels.....

(8) Ander toepaslike opmerkings of spesiale ondersoeke:
.....
.....
.....

(9) Het u ondersoek en waarneming 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 of Nee)

Indien nee, verstrek verdere besonderhede.....
.....
.....

(10) Ondersoek (voor indiensneming, roetine, stralingsvoorval, ander)
.....
.....
.....

(11) Handtekening van aangestelde geneesheer.....
Naam (in drukletters).....

(12) Datum van ondersoek.....

INSTRUKSIES 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 1114 (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. Item 4: 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. Item 8: Indien die aangestelde geneesheer dit goedvind, kan 'n verdere ondersoek gedoen word en dan moet alle besonderhede ingevul word, byvoorbeeld die resultaat van 'n ondersoek van die bloedvormende beenmurg.

DEPARTMENT OF HEALTH

ANNEXURE C

SECTION II

MEDICAL REPORT (For instructions see overleaf)

IDENTIFICATION OF RADIATION WORKER

(1) Surname.....

(2) Names.....

(3) Identity No.....

EXAMINATION

(4) Blood:

Red-cell count.....µl
White-cell count.....µl
Platelets.....
Haemoglobin.....g/100 ml

Differential white-cell count:

Granulocytes:

(a) Neutrophiles.....
(b) Eosinophiles.....
(c) Basophiles.....

Monocytes.....
Lymphocytes.....
Abnormal cells.....

(5) Eyes:

(a) Lens.....
(b) Visual fields.....

(6) Urine:

(a) Albumin.....
(b) Sugar.....
(c) Microscopic.....
(d) Radioactivity in urine (if necessary).....
.....
.....

(7) Hands:

Skin (a) Telangiectasia.....
(b) Hyperkeratosis.....
(c) Atrophy.....

Skin appendices:

(a) Sweat-glands.....
(b) Hair.....
(c) Nails.....

(8) Other relevant remarks or special examinations:
.....
.....
.....

(9) From your examination and observation, 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 a radiation worker?

(Yes/No)

If "No", give further details.....
.....
.....

(10) Examination (pre-employment, routine, radiation occurrence, other).....
.....

(11) Signature of appointed doctor.....
Name (block letters).....

(12) Date of examination.....

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 1114 (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. Item 4: Enter the complete blood count, and should any abnormal cells or fragments be discovered, indicate the findings in the space marked "abnormal cells".
4. Item 8: 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.

DEPARTEMENT VAN GESONDHEID

BYLAE C

SEKSIE III

VERSLAG VAN BLOOTSTELLING

(Vir instruksies sien keersy)

IDENTIFIKASIE

1. Familienaam..... 2. Voorname.....
3. Identiteitsno..... 4. Ouderdom op 1 Januarie.....
5. Naam van diens.....

BEROEPSBLOOTSTELLING

Beroepsblootstelling vir 19.....

5. Dosis gemeet vir (hele liggaam, hande, oë, ens.).....
6. Maksimum oorblywende dosis aan begin van tydperk deur hierdie staat gedek.....
7. Moniteringsmetode:
   Gamma- en X-strale.....Beta.....Neutron.....
8. Blootstellingstydperk:

Eerste Kwartaal

Van—tot	Dosis vir tydperk (rem)			
	Gamma- en X-strale	Beta	Neutron	Totaal
	Totaal vir kwartaal...			

Tweede Kwartaal

Van—tot	Dosis vir tydperk (rem)			
	Gamma- en X-strale	Beta	Neutron	Totaal
	Totaal vir kwartaal...			

Derde Kwartaal

Van—tot	Dosis vir tydperk (rem)			
	Gamma- en X-strale	Beta	Neutron	Totaal
	Totaal vir kwartaal..			

Vierde Kwartaal

Van—tot	Dosis vir tydperk (rem)			
	Gamma- en X-strale	Beta	Neutron	Totaal
	Totaal vir kwartaal...			

9. Totaal vir hierdie jaar.....

DEPARTMENT OF HEALTH

ANNEXURE C

SECTION III

EXPOSURE REPORT

(For instructions see overleaf)

IDENTIFICATION

1. Surname..... 2. Names.....
3. Identity No..... 4. Age on 1 January.....
5. Name of Service.....

OCCUPATIONAL EXPOSURE

Occupational exposure for 19.....

5. Dose recorded for (whole body, eyes, etc.).....
6. Maximum remaining dose at beginning of period covered by this report.....
7. Method of monitoring:
   Gamma and X-rays.....Beta.....Neutron.....
8. Period of exposure:

First Quarter

From—to	Dose for period (rem)			
	Gamma and X-rays	Beta	Neutron	Total
	Total for quarter....			

Second Quarter

From—to	Dose for period (rem)			
	Gamma and X-rays	Beta	Neuton	Total
	Total for quarter....			

Third Quarter

From—to	Dose for period (rem)			
	Gamma and X-rays	Beta	Neutron	Total
	Total for quarter...			

Fourth Quarter

From—to	Dose for period (rem)			
	Gamma and X-rays	Beta	Neutron	Total
	Total for quarter....			

9. Total for this year.....

GEAKKUMULEERDE DOSIS VIR LEEFTYD

10. Vorige totaal.....
11. Totale dosis ontvang (9 + 10).....
12. Indien 'n persoon oorbestraal of gekontamineer is as gevolg van 'n noodgeval of ongeluk, gee benaderde dosis en datum ('n volledige verslag moet aangeheg word).....
.....
13. Toelaatbare geakkumuleerde dosis 5 (N—18).....
14. Toelaatbare oorblywende dosis.....
15. Datum..... .....
Handtekening van houer
.....
Naam (drukletters)

Instruksies:

Item 4: Verstrek die ouderdom in volle jare soos op 1 Januarie. Dit word met N aangedui wanneer die maksimum toelaatbare dosis bereken word.

Item 5: Hou op afsonderlike vorms aantekening van die stralingsdosisse wat iemand aan die hande of voorarms of voete en enkels, ens., ontvang, tensy dit by die dosis aan die hele liggaam ingesluit is. Dui ook op 'n afsonderlike vorm aan dié dosisse wat aan inwendige kontaminasie toe te skryf is.

Item 6: Verkry die maksimum toelaatbare stralingsdosis uit die vorige rekords van blootstelling, met ander woorde uit item 14 van die vorige jaar se vorm. In die geval van 'n persoon wat in diens geneem word en van wie daar voorheen rekords gehou is van stralingsblootstelling, word die gegewens bereken vanuit die verslag van vorige diens. In die geval van 'n persoon ten opsigte van wie daar geen vorige rekord van stralingsblootstelling bestaan nie, aanvaar u dat die persoon gemiddeld 5 rem per jaar sedert sy 18de jaar ontvang het.

Item 7: Dui aan watter metode toegepas is om die persoon se blootstelling aan die verskillende soorte straling te bepaal. Teken aan die totaal van die twee dosisse ten opsigte van 'n persoon wat sowel gamma- as X-straaldosisse ontvang. Hierdie vorm is nie van toepassing op iemand wat slegs X-straaldosisse ontvang nie.

Item 8: Stip aan die eerste en laaste datum van die blootstellingstydperk. Byvoorbeeld 9/10/72–3/11/72 vir die tydperk Maandag, 9 Oktober 1972, tot Vrydag, 3 November 1972, waarvoor 'n filmwapen uitgereik is. Tel die waardes onder "Gamma- en X-strale", "Beta" en "Neutron" bymekaar ten opsigte van elke blootstellingstydperk en skryf die totaal in. Ruimte is op die vorm gelaat vir die gegewens vir vier kwartale.

Item 9: Vul in die eindtotaal vir die jaar soos verkry uit die totale vir die vier kalenderkwartale onder item 8.

Item 10: Vul hier in die vorige totale geakkumuleerde dosis verkry uit vorige dosisrekords ten opsigte van die persoon, naamlik uit item 11 van hierdie Seksie of item 11b van Seksie 1.

Item 11: Tel die totale in items 9 en 10 aangegee, bymekaar, en vul dit hier in.

Item 12: In geval van 'n stralingsvoorval, heg 'n afsonderlike verslag aan op die vorm getoon in Bylae D.

Item 13: Bereken die toelaatbare geakkumuleerde dosis vir die hele liggaam in rem. N is die ouderdom soos in item 4 verstrek. Trek 18 van N af en vermenigvuldig die verskil met 5 rem., bv., ouderdom is 46, dus N = 46 en 5 (N—18) = 5 (46—18) = 140 rem.

Item 14: Stel vas wat die toelaatbare dosis is deur die totaal in item 11 aangegee van die totaal in item 13 aangegee af te trek. Die toelaatbare dosis vir die persoon is die gedeelte van die geakkumuleerde dosis vir die leeftyd wat nog oorbly aan die enide van die tydperk wat deur hierdie vorm gedek word.

Item 15: Verstrek hierdie datum van die laaste inskrywing in die register.

DEPARTEMENT VAN GESONDHEID

BYLAE D

KENNISGEWING VAN STRALINGSVOORVAL

[Vereis ingevolge van regulasie III 4 (h) (1)]
(Vir instruksies sien keersy)

Sekretaris van Gesondheid
Privaatsak X88
Pretoria

1. Naam en adres van houer.....
.....
2. (a) Produklisensienommer.....
(b) Perseellisensienommer.....
3. Die oorsaak van die stralingsvoorval.....
.....
.....
.....
4. Maatreëls wat getref is om herhaling van stralingsvoorval te voorkom.....
.....
.....
.....

LIFETIME ACCUMULATED DOSE

10. Previous total.....
11. Total accumulated dose (9 + 10).....
12. If the individual has ever had an emergency or accidental overexposure or been contaminated, give approximate dose and date (A full report should be attached).....
.....
13. Permissible accumulated dose 5 (N—18).....
14. Permissible dose in reserve.....
15. Date..... .....
Signature of holder
.....
Name (block letters)

Instructions:

Item 4: Enter the age in full years as on 1 January. This is called N when used in calculating the maximum permissible dose.

Item 5: Should an individual receive a radiation dose to the hands and forearms or feet and ankles, etc., the dose to these parts of the body should be recorded on separate forms unless such dose is included in the dose to the whole body. Doses due to internal contamination must also be recorded on a separate form.

Item 6: The maximum permissible dose is obtained from previous records of exposure, i.e. from item 14 of the form for the previous year. In the case of the employment of a person in respect of whom records of previous exposure to radiation have been kept, the data are calculated from the record of previous service. In the case of a person in respect of whom no previous records of radiation exposure have been kept, it is assumed that he has received an average dose of 5 rem per year since the age of 18.

Item 7: Indicate the method used in monitoring the individual's exposure to each type of radiation. For an individual who receives doses from both gamma and X-rays record the total for the two doses. For an individual who receives doses from gamma rays only this form is not applicable.

Item 8: Specify the first and the last date of the exposure period. Thus for example, the period running from Monday, 9 October 1972, to Friday, 3 November 1972, for which a film badge has been issued should be entered as 9/10/72–3/11/72. Add the values under "Gamma and X-rays", "Beta" and "Neutron" for each period of exposure and record the total. Provision is made for the data of four quarters.

Item 9: Enter the sum of all totals for the year as obtained from the totals for the four calendar quarters under item 8.

Item 10: Enter the previous total accumulated dose obtained from previous dose records in respect of the individual, i.e. from item 11 of this section or from item 11b of Section 1.

Item 11: Enter the sum of the totals given under items 9 and 10.

Item 12: In the case of a radiation occurrence, attach a separate report on the form shown in Annexure D.

Item 13: Calculate the permissible accumulated dose in rem for the whole body. Use the value for N as given under item 4. Subtract 18 from N and multiply the difference by 5 rem, e.g. age is 46, therefore N is 46 and 5 (N—18) = 5 (46—18) = 140 rem.

Item 14: Determine the permissible dose by subtracting the total given under item 11 from the total given under item 13. The permissible dose for the individual is that portion of the lifetime accumulated dose remaining at the end of the period covered by this sheet.

Item 15: State the date of the last entry in the register.

DEPARTMENT OF HEALTH

ANNEXURE D

NOTIFICATION OF RADIATION OCCURRENCE

[Required in terms of regulation III 4 (h) (1)]
(For instructions see overleaf)

Secretary for Health
Private Bag X88
Pretoria

1. Name and address of holder.....
.....
2. (a) Product Licence No.....
(b) Premises Licence No.....
3. The cause of the radiation occurence.....
.....
.....
.....
4. Measures applied to prevent a re-occurence.....
.....
.....
.....

5. (a) Aantal stralingswerkers wat betrokke is.....

Naam	Identiteits-no.	Omvang van blootstelling	Vorige geakkumuleerde dosis vir leeftyd	Beserings

(b) Aantal iede van die publiek wat betrokke is.....

Naam	Identiteitsno.	Omvang van blootstelling	Beserings

6. Enige ander toepaslike inligting.....

.....

7. Verklaring:

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

Handtekening van houer.....
Naam (drukletters).....

..... Datum

INSTRUKSIES

1. Item 3: Gee 'n volledige beskrywing van die omstandighede waaronder die stralingsvoorval plaasgevind het, insluitende oorsake.

2. Item 4: Beskryf die stappe wat gedoen is, indien stappe gedoen is, om die oorsake van die stralingsvoorval te beheer, reg te stel of uit te skakel en om herhaling van die stralingsvoorval te voorkom.

3. Item 5 (a) en (b): Dui aan die aantal persone wat blootgestel is tydens die stralingsvoorval; die omvang van hul blootstelling en/of beserings, en hul geakkumuleerde dosis vir leeftyd, uitgesonderd die dosis wat hul tydens die stralingsvoorval ontvang het.

Indien die ruimte onder items 3, 4 en 5 onvoldoende is, moet die inligting op 'n aparte vel papier verstrek word.

DEPARTEMENT VAN GESONDHEID

BYLAE E

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 opgeneem word)

Identifikasie:

1. Familienaam.
2. Voorname.
3. Geboortedatum.
4. Geslag.

Vorige stralingsprosedures (as daar was):

5. Datum of tydperk.
6. Diagnosties of terapeuties.
7. Aard en omvang van prosedure.

Stralingsprosedure:

8. Datum of tydperk.
9. Diagnosties of terapeuties.
10. 'n Kort verslag van die kliniese aanduidings as gevolg waarvan die stralingsondersoek of -behandeling onderneem is.
11. Die lisensienommer van die betrokke elektroniese produk wat in die stralingsprosedure gebruik is.
12. Vir 'n diagnostiese ondersoek:
    (a) Die tipe diagnostiese prosedure wat gevolg is, bv. radiografie, fluoroskopie of fotofluorografie.
    (b) Aantal blootstellings (indien van toepassing).
    (c) 'n Kort verslag van die diagnostiese inligting wat uit die ondersoek verkry is.

5. (a) Number of radiation workers involved.....

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

(b) Number of members of public involved.....

Name	Identity No.	Magnitude of exposure	Injuries

6. Any other relevant information.....

.....

7. Declaration:

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

Signature of holder.....
Name (block letters).....

..... Date

INSTRUCTIONS

1. Item 3: Fully describe the circumstances surrounding the radiation occurrence including causes.

2. Item 4: Describe the steps, if any, which have been taken to control, correct or eliminate the causes and to prevent a recurrence of the radiation occurence.

3. Item 5 (a) and (b): State the number of persons exposed during the radiation occurrence; the magnitude of their exposure and/or injuries, and their lifetime accumulated dose, excluding the dose received from the radiation occurrence.

If the space provided under items 3, 4 and 5 is inadequate, the information should be provided on a separate sheet of paper.

DEPARTMENT OF HEALTH

ANNEXURE E

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

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

Identification:

1. Surname.
2. Names.
3. Date of birth.
4. Sex.

Previous radiation procedures (if any):

5. Date or period.
6. Diagnostic or therapeutic.
7. Nature and scope of procedure.

Radiation procedure:

8. Date or period.
9. Diagnostic or therapeutic.
10. Briefly state the clinical indications for undertaking the radiation examination or treatment.
11. Indicate the licence number of the electronic product used in the radiation procedure.
12. For diagnostic examination:
    (a) Indicate the type of diagnostic procedure followed, e.g. radiography, fluoroscopy or photo-fluorography, etc.
    (b) Number of exposures (if applicable).
    (c) Briefly state the diagnostic information obtained from the examination.

13. Vir radioterapie:
    (a) Tipe straling.
    (b) Kwaliteit van straling.
    (c) Stralingsopbrengs van die produk.
    (d) Vir elke tadioterapiebehandeling, moet 'n stralingsbehandelingsplan gehou word of 'n beskrywing van sodanige plan gegee word wat die volgende inligting bevat:
        (i) Aantal stralingsvelde.
        (ii) Veldgroottes.
        (iii) Maksimum tumordosis.
        (iv) Minimum tumordosis.
        (v) Maksimum weefseldosis.

BYLAE F

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.

13. For radiotherapy:
    (a) Type of radiation.
    (b) Quality or radiation.
    (c) Radiation output of product.
    (d) For every radiotherapy treatment a radiation treatment plan shall be preserved, or a description of such a plan given including the following information:
        (i) Number of radiation fields.
        (ii) Field sizes.
        (iii) Maximum tumour dose.
        (iv) Minimum tumour dose.
        (v) Maximum tissue dose.

ANNEXURE F

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.

Nuttige wenke—

1. Adresseer alle posstukke volledig, duidelik en sonder misleidende afkortings.
2. Plaas u eie adres agterop die koevert of omslag.
3. Moenie muntstukke of ander harde artikels in briewe insluit nie.
4. Gebruik posorders of poswissels wanneer geld deur die pos gestuur word.
5. Verpak pakkette behoorlik. Gebruik sterk houers en dik papier en bind dit stewig vas.
6. Maak seker dat die posgeld ten volle vooruitbetaal is.
7. Plak die posseëls in die boonste regterhoek van die koevert of omslag.
8. Verseker u pakkette en registreer waardevolle briewe. Dokumente wat slegs teen hoë koste vervang kan word, moet verkieslik verseker word.
9. Pos vroegtydig en dikwels gedurende die dag. Posstukke wat tot op die laaste oomblik teruggehou word kan vertraging veroorsaak.
10. Verstrek u volledige posadres aan u korrespondente asook u posbusnommer waar van toepassing.

Useful Hints—

1. Address all mail fully, clearly and without misleading abbreviations.
2. Place your own address on the back of the envelope or wrapper.
3. Do not enclose coins or other hard objects in letters.
4. Sent remittances by Postal Order or Money Order.
5. Pack parcels properly, using strong containers and heavy paper. Tie securely.
6. Prepay postage fully.
7. Place postage stamps in the upper right hand corner of the envelope or wrapper.
8. Insure your parcels and register valuable letters. Documents which can only be replaced at considerable cost should preferably be insured.
9. Post early and often during the day. Mail held until the last moment may cause delay.
10. Give your correspondents your correct post office address including your box number where applicable.

INHOUD

CONTENTS

Gedruk deur en verkrygbaar by Die Staatsdrukker,
Bosmanstraat, Privaatsak X85, Pretoria

Printed by and obtainable from The Government Printer,
Bosman Street, Private Bag X85, Pretoria

2—3766