

REPUBLIKA Y'U RWANDA



IKIGO GISHYIZWE MINE, PETEROLI NA GAZI MU RWANDA

AMABWIRIZA Y'UMUTEKANO MURI MINE

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INTANGIRIRO

Amabwiriza y'umutekano muri mine cyangwa igitabo cy'imiorere myiza bireba ubucukuzi bwose harimo ubucukuzi bukorwa ahafunguye hejuru, ubucukuzi bukorerwa ikuzimu n'ubukorerwa mu ndake. Ahakorerwa ibikorwa bwo gutunganya amabuye n'ibindi bikenerwa mu mirimo y'ubucukuzi nabyo bigengwa n'aya mabwiriza.

Intego ni ugushyira ibigenderwaho byiza mu micungire y'ubuzima n'umutekano mu bucukuzi no ku buryo bw'umwihariko mu bucukuzi bukorerwa ikuzimu no muri mine ifunguye. Ibipimimo ngenderwaho bw'umutekano mu bucukuzi bizatanga uburyo bwo gucunga ibyago n'impanuka bikomoka ku bucukuzi bw'amabuye y'agaciro.

Amabwiriza y'umutekano mu bucukuzi ntibisimbura cyangwa ngo birenge ingingo ziteganyijwe mu Itegeko rigenga ubucukuzi bw'amabuye y'agaciro na kariyeri n° 13/2014 ryo kuwa 20/05/2014 ndetse n'amateka arishyira mu bikorwa. Igihe habaye kuvuguruzanya bishingiye ku myumvire, Itegeko n° 13/2014 ryo kuwa niryo rikurikizwa. Ibipimo bizajya bikoreshwa hamwe n'ibindi n'amategeko bishyiraho n'izindi nzego

IBISOBANURO BY'AMAGAMBO

Amagambo akoreshwa asobanura ibi bikurikira keretse hari ukundi asobanuye mu yandi mategeko

"Itegeko" ni Itegeko n° 13/2014 ryo kuwa 20/05/2014 rigenga ubucukuzi bw'amabuye y'agaciro na kariyeri

"Umukoresha" ni Sosiyeti cyangwa Koperative ikoresha abakozi ahakorerwa ubucukuzi

«Inyigo y'ingaruka ku bidukikije « ni inyigo igaragaza ibyo ufite uruhushya agomba gukora nk'uko bisobanuwe mu mategeko agenga ibidukikije mu mirimo y'ubucukuzi

"Ukora imirimo y'ubucukuzi" ni uhagarariye ufite urushya rwo gucukura ashobora kuba Diregiteri, Umuyobozi w'Ikigo cyangwa Umuyobozi Mukuru w'ufite uruhushya rwo gukora ubucukuzi,

"Imirimo y'ubucukuzi" ni Sosiyeti cyangwa Koperative biri mu bikorwa by'ubushakakashi cyangwa ubucukuzi by'amabuye y'ubutare, amabuye akoreshwa mu nganda, amabuye atiri ay'ubutare umucanga, amabuye yo kubaka n'amabuye aseye n'ingwa,

"Kugaragaza icyago" ni uburyo bwo kumenya niba icyiza kiriho, no gusesengura ibikigize,

"Icyago" ni ahashobora guturuka cyangwa ibintu bishobora gukomeretsa abantu, gutera uburwayi, kwangirika k'umutungo, kwangirika kw' ibidukikije, cyangwa byose icyarimwe,

"Igihombu" ni ibintu bidakunda kuba cyangwa bidapfa kugarara keretse iyo hashize igihe kinini ikiza kibaye,

"Nyir'uruhusya" ni urwego rwanditse ku ruhushya rw'ubucukuzi

«Mine» ni ahantu hose hari imyobo, ubuvumo, imiyoboro, ahacukuwe, ahanyuzwa amazi, filo, ahanyuzwa umwuka, hakoreshwa, hakorwaho cyangwa hakorerwaho imirimo y'ubucukuzi. Ibi birimo kandi inzu, ibyumba, inyubako n'izizunganiye, ziri hejuru cyangwa mu bukata zikoreshwa mu mirimo y'ubucukuzi, kuyungurura amabuye, kuyatunganya no kuyongerera agaciro.

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«**Buvo**» ni indake itambitse cyangwa yenda gutambika icukuwe uhereye hejuru mu mirimo ya mine

«**Ibicukurwa**» ni ibicukurwa byaba bikomeye, bisukika cyangwa umwuka bigaragara hejuru cyangwa mu butaka bitarimo amazi, peteroli cyangwa ibindi bicukurwa bigenwa n'andi amategeko.

«**Gucukura mine**» ni ugucukura ibicukurwa byaba bikomeye, bisukika cyangwa biri mu buryo bwa gazi mu butaka cyangwa hejuru hagamijwe kubona ibicukurwa, bivuga kandi imirimo yose ikorwa ku buryo buziguye cyangwa butaziguye ifitanye isano n'ubucukuzi bitari gazi .

«**Igice gikorera waho ubucukuzi**» ni igice cy'ubutaka cyatangiyeho uruhushya rw'ubucukuzi ruteganywa n'itegeko,

«**Imirimo y'ubucukuzi**» ni imirimo ikorwa mu gihe cy'ubucukuzi

«**Uruganda rwa mine**» ni « ni inyubako, imashini, uburyo bukoreshwa cyangwa imitungo yakoreshejwe mu bucukuzi ifashe cyangwa idafashe mu butaka ariko ntihabarirwamo ibiti n'ibindi bikoresho byakoreshejwe mu kubaka cyangwa gushyigikira ahamanukirwa gushyigikira indake, amasimu, terase, imiyoboro y'amazi, ibitega cyangwa indi mirimo.

«**Uruhushya rwa mine**» ni uruhushya rwo gucukura mine, kariyeri cyagwa rwo gushakashaka rutagwa hakurikije itegeko,

«**Ibishobora kuba**» ni impurirane y'ibishobora kuba n'ingaruka zabyo bituruka ku cyago iki n'iki,

«**Isuzuma ry'ibishobora kuba**» ni uburyo rusange bwo kugeranya ikigero cy'ibishobora kuba n'icyemzo cyo kumenya niba ibishobora kuba byakwihanganirwa cyangwa kwemerwa,

«**Ahantu hatawe**» ni ahantu hose imirimo yahagaze kandi nta muntu uhagere;

«**Uruzitiro**» bisobanura uburyo bwashyizweho bukumira kwinjira ahantu;

“Umuntu ubifitiye ububasha” ni umuntu ufite ubumenyi, inararibonye, ubumenyi ngiro n’ubushobozi bwo gukora ku buryo bwihariye ubugenzuzi bw’imirimo yerekeyeranye no gutobora, guturisha intambi, amazi, amashyanyarazi, kubaka no gukora ubukanishi byemejwe n’Ishami ribishinzwe rimaze gukora ubugenzuzi. Ubumenyi n’ubunaribonye bizashyirwaho n’Urwego rubifitiye ububasha

“Imashini» bisobanura imashini z’ubwoko bwose zaba izikoresha amashanyarazi cyangwa ingufu zisanzwe

“Igitunguranye” ni ikintu kitari giteganyijwe gitera ukwangirika cyangwa gituma umusaruro ubura ariko kidateza ibyago bikomeye

“Umugenzuzi” ni umugenzuzi wa mine washyizweho hashingiye ku mategeko kandi ukorera mu n’agashami gashinzwe amategeko n’Ubugenzuzi ko mu Ishami rishinzwe Jewoloji

“ Kariyeri»bisobanura imirimo ikorerwa ku butaka hagamijwe gucukura ibikoresho bwo kubaka cyangwa ibikoreshwa mu nganda.

“Ishami” bisobanura urwego rwa Leta rushinzwe gushyira mu bikorwa amategeko, amabwiriza n’ibipimo ngenderwaho by’ubucukuzi

“Impanuka” bisobanura ikintu kitateganyijwe gitera igihombo.

“Icyago gishoboka” ni ikintu kidateganyijwe ku mpamvu zoroheje zinyuranye gishobora guteza impanuka

“Inzira y’amadarajya” igice cy’umwobo cyangwa ahamanukirwa hashyirwa inzego ku buryo buhoraho kugira abantu bashobore kuhagenda

“Urwego” harimo urwego rwo kugenderaho, urwego ruboshye n’urwego rw’inyongera

“Umukoresha” bisobanuye umuntu ku giti cye cyangwa abishyize hamwe, wa leta cyangwa wikorera, ukoresha umukozi umwe cyangwa benshi niyo baba bakora mu gihe kidahoraho;

“Umukozi” bisobanura umuntu wemera gukorera undi yaba umuntu ku giti cye cyangwa abantu bishyize hamwe, wa leta

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cyangwa wikorera, umurimo hagamijwe igihembo, akayoborwa kandi agahabwa amabwiriza nawe. Aha habarirwamo abakozi, abafitanye amasezerano n'ufite uruhushya, n'abacukuzi baciriritse;

“Umugenzuzi w'Umurimo” ni umuntu washyizwehonk'umugenzuzi w'umurimo hakurikije Itegeko rigenga umurimo

“Itegeko ry'umurimo” ni Itegeko N° 13/2009 ryo kuwa 27/05/2009 rigenga umurimo mu Rwanda

“Ishyirahamwe ry'abakoresha” bisobanura ishyirahamwe ry'abakoresha bakora imirimo imwe cyangwa ifitanye isano bagamije gusa kureba no kurengera inyungu zabo mu rwego rw'ubungu n'ibibereho myiza

“Ahakorerwa imirimo” ni ahantu abakozi bakorera akazi kabo. Igihe umukozi akora imirimo ibiri cyangwa irenzeho itandukanye mu buremere bwayo cyangwa mu kigamijwe, bifatwa nkaho akorera ahandi. Ahakorerwa hashobora kuba aho umukozi yagiye cyangwa aho yoherejwe gukorera.

“Ahakorerwa ubucukuzi” ni ahantu hakorerwa imirimo y'ubucukuzi cyangwa higeze gukorera ubucukuzi

“Ahakorerwa itunganya ry'amabuye” ni igice, cyangwa ahantu hose hagenewe gutunganya amabuye

“Umwana” ni umuntu wese uri muni y'inyaka cumi n'umunani (18) y'amavuko;

“Ishyirahamwe ry'abakozi” ni ishyirahamwe bisobanura abakozi bakora akazi kamwe cyangwa gafitanye isano, bagamije kurengera inyungu zabo mu rwego rw'ubukungu n'imibereho myiza

1.0 ISHINGANO MURI MINE

	AMABWIRIZA	IBIGOMBA GUKORWA
1.1	<p>Uruhare rw'ukora ubucukuzi nk'ufite urushya</p>	<p>a. Kumenyekanisha gahunda y'ibikorwa mbere yo gutangira imirimo</p> <p>b. Gufa ingamba zose za ngombwa zo kurinda umutekano n'ubuzima bw'abakozi be mu kazi</p> <p>c. Kumenya ko imashini n'ibikoresho bikoreshwa bihari kandi bimeze neza ku buryo byakoreshwa bidateje impanuka</p> <p>d. Gushyiraho no gushyira mu bikorwa politiki y'ubuzima n'umutekano no kurengera ibidukije ku kazi</p> <p>e. Gushyiraho politiki n'ibipimo ngenderwaho mu mikorere hagamijwe kurinda gukumira no guhangana n'ibyago bigwiriye abakozi</p> <p>f. Guha abakozi ibikoresho byabugenewe, bibarinda impanuka</p> <p>g. Kumenyesha abakozi ibi bikurikira:</p> <ul style="list-style-type: none"> i) Ingamba zo kwitabara zihutirwa; ii) Ibyago abakozi bashobora guhura nabyo mu kazi; iii) Ibyago umukozi ashobora gutera mu kazi zikagira ingaruka ku bandi bantu iv) Uburyo bwo kugabanya impamvu zishobora guteza ibibazo ku bandi bantu <p>h. Gushyiraho ibikoresho bw'ubutabazi n'uburyo bwo kubikoresha no kubyitaho</p> <p>i. Gutanga raporo ku nzego zinyuranye za Leta nk'uko bisabwa n'Itegeko n'amabwiriza bigenga ubucukuzi;</p> <p>j. Gufatira ubwishingizi bw'akazi abakozi bose, bwishingira gutanga ingurane ingana nibura na miliyoni ebyiri (2) ku bumuga buhoraho na miliyoni imwe n'igice (1,5) igihe umukozi yapfuye hamaze kwishyura amafaranga yose yakoreshejwe;</p> <p>k. Kumanika amazina ahagije y'abapolisi, abagenzuzi ba mine b'Ishami rishinzwe mine kugira ngo bikoreshwe igihe habaye ibyag</p>

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1.2	Uruhare rw'abakozi	<ul style="list-style-type: none"> a. Kumenya ingamba zerekeye umutekano n'ubuzima mu gihe bari mu kazi b. Gukurikiza amabwiriza bahawe n'umukoresha cyangwa ubayobora c. Gufata ingamba zo kumenyekanisha ibyago badashobora kugenzura ubwabo; d. Kutemera gukorera imirimo ahashobora kubateza impanuka e. Gufata neza ibikoresho byo kurinda umutekano harimo ibirinda umutekano wa buri wese ku giti cye f. Gufatanywa n'abakozi ba Leta batanga amakuru akenewe
1.3	Uruhare rw'Abagenzuzi ba Mine	<ul style="list-style-type: none"> a. Guhuza amategeko yose no gukurikirana imirimo y'ubucukuzi b. Kwinjira, kugenzura no gusuzuma buri mine cyangwa igice cyayo haba ku manywa cyangwa n'injoro c. Gukurikira ko ubugenzuzi bukorwa ku buryo amategeko akurikizwa ariko bitabangamira imirimo y'ubucukuzi d. Gutanga amabwiriza babona ko ari ngombwa mu nyungu z'umutekano n'ubuzima e. Gufata ibipimo cyangwa gusuzuma ikintu cyose babona ari ngombwa f. Gutegura no gukurikirana amabwiriza ya mine g. Gushyira mu bikorwa ibipimo ngenderwaho muri mine mu rwego rw'igihugu hamwe n'amabwiriza ya ICGLR h. Gukora iperereza n'ubushakashatsi ku mpanuka n'ibyago bifitanye isano na mine i. Gufata no kwandika ubuhamya bw'abagabo cyangwa gushaka amakuru yerekeye impanuka j. Gutegeka no gushyira mu bikorwa amategeko agenga gutunga amabuye y'agaciro k. Gukora ibindi byose nk'uko byateganyijwe

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1.4	Uruhare rw'abantu bemerewe na Leta	<p>a. Inzego za Leta zihagarariwe mu nzego zibanze zigomba gukurikirana ko ubucukuzi bukorwa mu nzira zubahiriza amategeko agenga ubuzima , umutekano w'abakozi n'ibidukikije</p> <p>b. Abagenzuzi b'umurimo n'abakozi ba Leta mu nzego z'ibanze bafite uburenganzira bwo kwinjira ahakorerwa imirimo y'ubucukuzi mu rwego rwo gukurikirana uko bukorwa</p> <p>c. Abagenzuzi b'umurimo muri Minisiteri y'abakozi ba Leta bafite uburenganzira bwo gukora imirimo yabo iteganyijwe mu itegeko rigenga umurimo, mu mirimo yose y'ubucukuzi</p>
1.5	Uruhare rw'amashyirahamwe y'abakozi n'abakoresha	<p>a. Mu micungire y'ibyerekeye ubuzima n'umutekano amashyirahamwe y'abakozi afite ishingano zikurikira:</p> <p>i. Kongera inyumvire mu byerekeye amategeko agenga umutekano</p> <p>ii. Guhugura abakozi ku nshingano z'Amashyirahamwe y'abakozi no mu byerekeye ubuzima n'umutekano</p> <p>iii. Gushishikariza Urwego rushinzwe ubucukuzi, amabwiriza y'ubuzima y'Umuryango w'Abibumbye</p>
1.6	Gukurikirana no kuyobora imirimo y'ubucukuzi mu mine	<p>a. Umutekano muri Mine cyangwa Umuyobozi niwe ushobora gukurikirana no kuyobora imirimo y'ubucukuzi igihe cyose</p> <p>b. Ubumenyi bw'ibanze n'ubunararibonye ku bantu bashyirwa mu mwanya wa Tekinisiye cyangwa w'Umuyobozi w'imirimo ahakorerwa ubucukuzi ni impamyabushobozi y'icyiro cya mbere cya Kaminuza (A1) mu bya mine,</p> <p>c. Nta muntu ushobora gukora imirimo muri mine ya Tekinisiye cyangwa y'Umuyobozi atabifitiye icyemezo cyanditse ahabwa n'Umukoresha</p> <p>d. Umutekano cyangwa Umuyobozi agomba gukurikirana ko abakozi bashinzwe amashyirahamwe cyangwa gutobora no guturitsa intambi ahakorerwa ubucukuzi bafite ubumenyi</p> <p>e. Umuyobozi cyangwa Tekinisiye niwe ushinzwe umutekano w'abantu, ibikoresho no kurengera ibidukikije</p>

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1.5	Ubufatanye n'abagenzuzi n'abakozi ba Leta babifiye ububasha	Ukora imirimo y'ubucukuzi yubahiriza kandi agomba: a. kutabangamira umugenzuzi cyangwa umukozi wa Leta mu gushyira mu bikorwa ishingano ze; b. kudakerereza abigambiriye umugenzuzi cyangwa umukozi wa Leta iyo bari mu kazi kabo c. kubahiriza amabwiriza yose cyangwa ibyo ayobowemo n'umugenzuzi cyangwa umukozi wa Leta; d. gutanga konti, ubushakashatsi, uruhushya, inyandikomvugo, raporo cyangwa indi nyandiko isabwe n'umugenzuzi cyangwa umukozi wa Leta; e. kutabeshya cyangwa kwemera ko undi abeshya umugenzuzi cyangwa umukozi wa Leta kuri konti, ubushakashatsi, uruhushya ibarura, inyigo, ku ruhushya , inyandikomvugo, raporo cyangwa indi nyandiko
1.6	Imyaka mike yo kwemererwa gukorera muri mine y'ikuzimu	a. Umwana nk'uko bisobanuye mu mategeko agenga umutekano, ntiyemerewe gukora muri mine b. Imyaka mike yo gukora ni 18 c. Imirimo ikoreshwa abana irabujijwe mu mirimo y'ubucukuzi

2.0 KUGARAGAZA IBYAGO NO KUGENZURA INGARUKA

	AMABWIRIZA	IBIGOMBA GUKORWA
2.1	Kugenzura ibyago	<p>a. Ukora imirimo y'ubucukuzi agomba kumenya kugaragaza no kwandika ibishobora guteza impanuka mbere yuko biba, ibishya cyangwa ibishobora kubaho no kubigenzura buri gihe no kubikurikirana buri gihe hagamijwe kureba impinduka zihari no kureba niba hari ibikorwa bigomba gukorwa</p> <p>b. Iyo hari impanuka ibaye, umukoresha agomba kuyandika mu gitabo cyashyizweho n'Urwego rushinzwe ubucukuzi. Umukoresha kandi agomba kugenzura niba byatewe n'ibiza.</p> <p>c. Iyo impanuka ikomeye, ukora ubucukuzi agomba gukora ibi bikurikira;</p> <p>i. Iyo bishoboka, impanuka igomba gukurwaho</p> <p>ii. Iyo guhagarika ikiza bishoboka, gishyirwa mu kato</p> <p>iii. Iyo kugikuraho cyangwa kugishyira mu kato bidashoboka, umukoresha agomba gushaka uko akigabanya ku bakozi cyangwa akareka aho yakoreraga imirimo y'ubucukuzi</p>
2.2	Gusesengura ibyatera impanuka ishobora kuba	<p>a. Ukora ubucukuzi agomba kumenya ko yumva inkomoko n'ubwisubire bw'impanuka kugira ngo ashobore kumenya ibyaba, n'ibishobora kuba aho akorera ubucukuzi.</p> <p>b. Ukora ubucukuzi agomba kwandika amakuru yose yerekeye ibyago ahakorerwa ubucukuzi</p>
2.3	Ibikoresho birinda umuntu ku giti cye	<p>a. Ukora ubucukuzi azaha abakozi be bese ibikoresho bibarindira umutekano, kandi akazakurikirana ko babikoresha neza kandi bakabifata neza Kwita ku bikoresho by'umutekano bikorwa n'Umukoresha na buri mukozi.</p> <p>b. Ukora ubucukuzi akena kandi agashyiraho uburyo bwo gusimbura ibikoresho by'umutekano nk'uko amabwiriza y'ababikoze abiteganyaga kandi hashingiwe k'uburyo bikoreshwa n'aho bikoreshwa.</p> <p>c. Gukoresha ingofero z'umutekano, amakoti n'imyambaro y'akazi ni itegeko mu bice bya mine byagenywe</p> <p>d. Uturinda ntoki, uturinda rusaku, amataratara by'umutekano birakoreshwa igihe cyose ari ngombwadi. Ibikoresho byose by'umutekano bigomba kuzuzwa ibipimo byashyizweho n'Ishami ribishinzwe</p>

3.0 KUGIRA AHAKORERWA AKAZI AHANTU HIZEWE

	AMABWIRIZA	IBIGOMBA GUKORWA
3.1	Gusuzuma ahakorerwa imirimo no gukora lisiti y'aho ubutaka bushobora kwika	<p>a. Umuyobozi cyangwa Tekinisiye ashyiraho umukozi ugomba kugaragaza ubutaka byose bwitse (ku rutare cyangwa ku butaka), impinduka muri jewoloji no kugena ibigomba gukorwa kugira ngo hatagira ubutaka busigara butagenzuwe</p> <p>b. Lisiti yo gusuzumiraho ishingiyeye ku bisabwa rusange igomba gukorwa mbere yuko imirimo itangira.</p> <p>i. Ese ahagiye gukorerwa higeze gukorerwa igenzura?</p> <p>ii. Ese abakozi bose bashobora kumenya ibitameze neza ku butaka?</p> <p>iii. Ese ubutaka bumeze neza?</p> <p>iv. Ese aho ubwiza bwabwo ntibuciriritse?</p> <p>v. Ese ubutaka bwo gukoreraho si bubu ?</p>
3.1.2	Lisiti yo kugenzuraho ibikoresho	<p>a. Lisiti ikorerwaho igenzura kugira ngo ahakorerwa hagire umutekano igomba gukorwa buri muni.</p> <p>i. Ese hari ibyuma byo gutobora bifite uburebure nyabwo kandi bifite umutekano uhagije?</p> <p>ii. Abakozi bafite ibibarindira umutekano byabugenewe ?</p>
3.1.3	Imiterere y'ahakorerwa	<p>a. Lisiti ikorerwaho igenzura ry'ahakorerwa muri mine igomba gukorwa kugira ngo bizere ko abantu bashobora kubona cyangwa kumva ibibazo biri ahakorerwa</p> <p>i. uko habona</p> <p>ii. urugero rw'urusaku</p> <p>iii. Ese hari umwuka uhagije?</p> <p>b. Lisiti isuzumirwaho umwuka uri ahakorerwa. Ese umwuka urehagije koko?</p>

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3.1.4	Ingamba zo kugenzura ubutaka bubi muri rusange	<p>a. Ingamba zo kugenzura ubutaka bumeze nabi hejuru y'ahinjira muri mine bigomba gukorwa mbere yo gutega ibitare bidafashe.</p> <p>b. Umuntu utega agomba gukurikiza amategeko abigenga aturuka ahadafashe aya ahameze neza</p> <p>c. Iyo gutera urutambi bidakozwe, ibifata by'agateganyo cyangwa uruzitiro nyuma y'ahameze nabi bikorwa hakurikijwe uburyo n'ibipimo bikurikizwa</p> <p>d. Ibifashi bihora bigomba gushyirwaho icyo:</p> <p style="padding-left: 20px;">i. Iyo ibifatshi by'agateganyo bigomba gusimburwa</p> <p style="padding-left: 20px;">ii. Iyo ibifashi bitujuje ibisabwa</p> <p style="padding-left: 20px;">iii. Iyo ibifashi byangiritse, ibifashi bike bigomba gushyirwaho neza</p>
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4.0 UGUCUKURA MURI MINE IRI IKUZIMU

	AMABWIRIZA	IBIGOMBA GUKORWA
4.1	Kugera ahakorerwa ubucukuzi ikuzimu	<p>a. Ibihe byo gutobora, gushyiramo intambi, guturitsa no gutwara amabuye bigomba gukurikirana no gukorwa mu mu buryo bwizewe igihe cyose</p> <p>b. Iyo guturitsa bitakiri ngombwa, ibihe bwo gucika bw'urutare mu gihe cyo gutobora, imirimo yo gupakira no gutwara igomba gukorwa mu buryo bwizewe</p> <p>c. Kugera muri mine bigomba gukorwa mu nzira zimanuka cyangwa hashamikiyeho izitambitse hashingiwe ku bunini no kwinjira hafite umutekano, ibikuta n'igisenge gifite umutekano</p> <p>d. Inzira zinjira zigomba gukoreshwa mu gutwara abakozi, amabuye yacukuwe kandi zigomba guhora zitaweho</p> <p style="padding-left: 20px;">i. Igitabo cyabugenewe kigaragaza ibyasuzumye nuko aho kwinjirira hameze ndetse n'ibisubizo byatanzwe, kigomba kuguma ahakorerwa imirimo y'ubucukuzi</p>

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<p>4.2</p>	<p>Inzira ya kabiri yo kwinjira no gusohoka</p>	<p>a. Muri buri mine inzira ya kabiri yo gusohoka itandukanye n'isanzwe ikoreshwa mu kwinjira igomba gutegurwa no gushyirwaho iyo ari ibishoboka.</p> <p>b. Inzira ya kabiri ikoreshwa mu gutanga umwuka no gusohoka igihe habaye ugusohoka byihutirwa</p> <p>c. Inzira ya kabiri igomba gukorwa ku buryo ikoreshwa mu gusohoka gufite umutekano mu gihe cyo gusohoka no kwinjira k'umwuka</p> <p>d. Inzira ya kabiri igomba gufatwa neza kandi nta bintu bibuza kuyikoresha</p> <p>e. Igenzura rihoraho kandi mu gihe cyagenwe rigomba gukorwa ku nzira za kabiri</p> <p>f. Igitabo kirimo ibyakozwe byemewe, uko inzira imeze n'ibisubizo byatanzwe kigomba kuba kuri mine</p>
<p>4.3</p>	<p>Kugera ahakorerwa binyuze mu myobo</p>	<p>a. Umwobo ugomba gukorwa nk'imwe mu nzira zo kunyuzamo umwuka, kumanukiramo kw'abakozi no kuzamura amabuye ndetse n'ibisigazwa</p> <p>b. Amabuye aturuka muri mine agomba kujyanwa hejuru agashyirwa mu bubiko bwabigenewe</p> <p>c. Umuyobozi cyangwa umuTekinisiye wa mine agomba gushyiraho amabwiriza y'umutekano yerekeye imirimo y'ikuzimu no gushyiraho umugenzuzi ushinzwe umutekano no kuyubahiriza</p> <p>d. Iyo gucukura amabuye cyangwa ibisigazwa bikorwa n'amaboko, ubuzima bw'abakozi bugomba kwitabwaho kuri ibi bikurikira:</p> <ul style="list-style-type: none"> i. uburemere bw'amabuye ii. urugendo rwo gukora iii. uburyo bwo gucunga umunaniro <p>e. Uburyo bwo gukura amabuye mu kuzimu uyanyujije mu myobo bugomba kuba bufite uburyo bwihariye bwo kwihagarika ubwabwo.</p> <p>f. Nk'uko bisabwa n'uburyo bukoreshwa muri mine, ubugenzuzi bukorwa mu bice bitandukanye bw'imyobo no kubikoresho bitanga umwuka</p> <p>g. Igitabo gikubiyemo ibyagenzuwe kigomba kuba kuri mine igihe cyose</p>

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<p>4.1.2</p>	<p>Kugera ahakorerwa hakoreshejwe inzira zimanuka</p>	<p>a. Inzira zimanuka zigomba gukoreshwa nk'inzira z'ibanze mu gushyira umwuka mwiza muri mine, mu gutuma abakozi bagera mu kuzimu no gutwara amabuye n'ibisigazwa</p> <p>b. Inzira z'ikuzimu zigomba gucukurwa kuburyo zitarenza degere 45 kubera umutekano w'abakozi igihe baja gucukura no gutwara amabuye n'ibisigazwa. Ioo degere 45 zirenze, hakoreshwa ingazi zifite inzego zo kwinjira</p> <p>c. Indake zigomba gucukurwa ku buhaname bwa 0.5 kugira ngo amazi ashobore gutemba</p> <p>d. Umuyobozi cyangwa Tekinisiye agomba gushyiraho amabwiriza y'umutekano yerekeye ibikorwa bw'ubucukuzi bumanuka no gushyiraho umugenzuzi ushinzwe umutekano no kwita ku mwobo.</p> <p>e. Iyo gucukura amabuye cyangwa ibisigazwa bikorwa n'amaboko ubuzima bw'abakozi bugomba kwitabwaho kuri ibi bikurikira:</p> <ul style="list-style-type: none"> i. uburemere bw'amabuye ii. urugendo rwo gukora iii. uburyo bwo gucunga umunaniro <p>f. Uburyo bwo gukura amabuye muri mine bugomba kuba bufite uburyo bwo kwihagarika ubwabwo</p> <p>g. Igitabo gikubiyemo ibyagenzuwe kigomba kuba kuri mine igihe cyose</p>
<p>4.2</p>	<p>Igipimo cyo gukora mine (indake)</p>	<p>a. Ahacukurwa amabuye aho ariho hose, hashyirwaho amabwiriza ku bakozi bagomba kuhakorera bitewe n'ubugari bw'ahagomba gucukurwa cyangwa aho indake igarukiye, n'umwuka uhari.</p> <p>b. Buri mine igena neza igipimo gitoya cy'indake z'ibanze, hashingiye ku buryo bukoreshwa mu gucukura n'ibikoresho. Indake igomba kuba nibura ifite 1,50x 1,80 m mu nzira y'ifatizo</p> <p>c. Mine igomba kugena ikigero cy'izindi nzira bitewe n'umubare, uburyo bwo gushyiramo umwuka, n'ubuhanga muri mine bukoreshwa</p> <p>d. Indake y'ibanze igomba kuba ifite ubuso bwo kunyuramo buhagije kandi butabuza abanyamaguru gufita</p>

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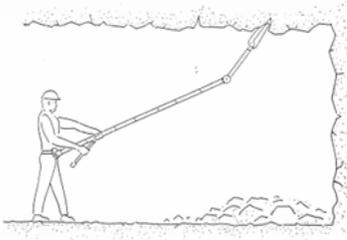
<p>4.2.1</p>	<p>Gushyira umwuka ahakorerwa ubucukuzi</p>	<p>a. Ikipe igizwe n'umukozi ushinzwe gushyiramo amatiyo, ugomba gukurikiranwa n'umukozi ubifiye ubushobozi, ushyiramo amatiyo azana umwuka</p> <p>b. Uko imirimo igenda irangira, ikipe yashyizemo amatiyo igomba mbere kwizera ko amatiyo yashyizwemo neza kugira ngo azashobore gukoreshwa n'ikipe izacukura hagamijwe:</p> <ol style="list-style-type: none"> i. gushyiramo umwuka. ii. kugeza umwuka ukoreshwa mu gutobora. iii. gukwirakwiza imirimo y'amazi ahakorerwa ugutobora. <p>c. Ibyuma bitanga umwuka birakoreshwa kugira ngo bigaragaze ahakorerwa imirimo yo gutobora</p> <p>d. Ibipimo byemeze bw'ibyuma bitanga umuyaga n'amatiyo, biterwa nuko bingana ahatangira</p> <p>e. Ibipimo bw'umwuka muri mine nto n'urugero rw'ibyuma bitanga umwuka biri mu mbonerahamwe ikurikira:</p> <table border="1"> <thead> <tr> <th>Urugero rw'icyuma gitanga umuyaga</th> <th>Urugero rw'umwuka (Meteo kibe mu isegonda)</th> <th>Aho icyuma gitanga umwuka gikoreshwa</th> </tr> </thead> <tbody> <tr> <td>380 mm</td> <td>1.6</td> <td>Ahantu hatoya</td> </tr> <tr> <td>405 mm</td> <td>1.7</td> <td>Ahantu hatayo</td> </tr> <tr> <td>480mm</td> <td>3.3</td> <td>Indake ikorerwamo</td> </tr> </tbody> </table> <p>Imbonerahamwe ya mbere - Urugero rw'icyuma gitanga umuyaga mu bice binyuranye</p>	Urugero rw'icyuma gitanga umuyaga	Urugero rw'umwuka (Meteo kibe mu isegonda)	Aho icyuma gitanga umwuka gikoreshwa	380 mm	1.6	Ahantu hatoya	405 mm	1.7	Ahantu hatayo	480mm	3.3	Indake ikorerwamo
Urugero rw'icyuma gitanga umuyaga	Urugero rw'umwuka (Meteo kibe mu isegonda)	Aho icyuma gitanga umwuka gikoreshwa												
380 mm	1.6	Ahantu hatoya												
405 mm	1.7	Ahantu hatayo												
480mm	3.3	Indake ikorerwamo												
<p>4.2.2</p>	<p>Amabwiriza yo gushyiraho amatiyo y'amazi n'umwuka</p>	<p>a. Ibipimo bikurikira bikoreshwa mu ishyirwaho ry'amatiyo ryose: -</p> <p>b. Imirimo yo gushyiramo amatiyo igomba gukorwa n'abakozi babyigiye.</p> <ol style="list-style-type: none"> i) Amasupane yemewe niyo agomba gukoreshwa mu gihe cyo gushyiramo amatiyo. Buri supane igomba kugenzurwa kugira ngo idatobora itiyi. ii) Aho amatiyo ahurira, inzira y'umwuka ingana nibura (urugero 150 mm) n'umurongo w'amazi ufite umubyimba ungana (100 mm) bishyirwaho guhera aho umuyobora utangirira. 												

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		<p>iii) Imyobo ikorerwamo igomba gucukurwa ku buryo buri tiyo iba ishashe kuri buri ruhande, ni ukuvuga ko buri tiyo iba ifashwe n'imyobo ibiri. Buri tiyo igomba kuba ifashwa na buro cyangwa akuma gakoze nka J kayifashe. Ibyuma ntibirenza 0.2 m z'uburebure</p> <p>iv) Ahafungurirwa umwuka n'amazi h'ibanze n'igipimo cy'umwuka bigomba gushyiraho hakurikijwe ubwoko bw'amatiyo</p>
<p>4.2.3</p>	<p>Gutegura ahakorerwa ubucukuzi mu ndake</p>	<p>Iyo hakorerwa ubucukuzi hakoreshejwe imashini, abatobora bagomba guhuriza hamwe ibyavuye mu bucukuzi bwo hejuru n'ikuzimu no kugeza ibikoresho aho bakorera.</p> <p>a. Ibikoresho n'ibindi bikoresho bibyunganira bigomba kuba bihari:</p> <ol style="list-style-type: none"> i. Imitarimba: Imitarimba ihagije kandi yo mu kigero nyacyo igomba guhabwa abatobora ii. Amavuta ya girise: Abatobora n'abakoresha ifunguzo zafunga cyangwa zifungura bagomba kugira amavuta ya girise iii. Ibipfundikira, ibyuma bicukura, ibijumba by'intambi, amarangi, ingwa n'imigozi bigomba gutangwa. iv. Ibitiyo, imitarimba ya 1,8 m na 3,0 m n'imifuka yo mu ntoki irimo ibikoresho bindi by'imashini v. Imashini zitobora n'ibyuma bitobora vi. Ibitiyo <p>b. Iyo hamaze gutegurwa no kugaragazwa ahakorerwa, ikiye ifite ibikoresho ihindura aho yari iri, byaba ngombwa, igakoresha ahantu hagenewe gutobora no gutega intambi</p> <p>c. Iyo aho hadakoreshejwe imashini, ikiye itobora ifata ibikoresho ikabigarura ku kazi. Ibikoresho biba birimo ibikoreshejwe n'intoki bicukura, ibishakisha.</p>
<p>4.2.4</p>	<p>Uburyo bwo koza no gusukura indake</p>	<p>a. Uburyo bwo gushyiramo umwuka bugomba kugezwa kuri 5 m no kumenya ko amatiyo afatanye neza</p> <p>b. Igisenge, impande, no ku rutuka harozwa hagamijwe:</p> <ol style="list-style-type: none"> i. Gukuraho umukungu uri ku rutare nuri mu mwuka. ii. Kugaragaza aho urutare rwacitse iii. Kuyungurura za gazi mu buryo bwose. iv. Gukonjesha ahakorerwa.

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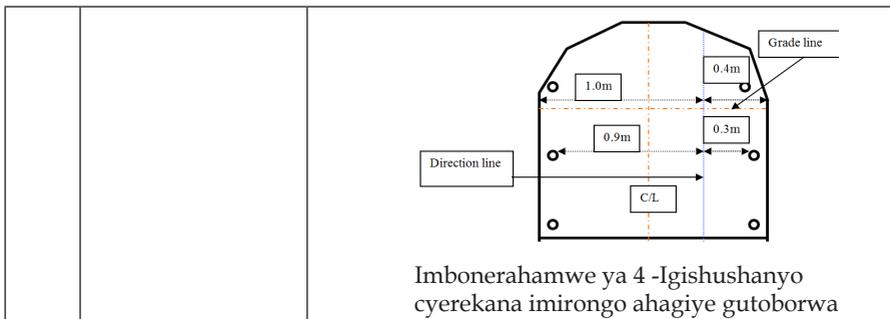
4.2.5	Ibikorwa kugira ngo urutare ruregarega rutagwa	<p>a. Igisenge n'ibituta bitambitse birirwa ibitare, hakoreshejwe imitarimba ya 2.0m mu rwego rwo kurinda ibikoresho ko byakagwizwa n'amabuye agwa</p> <p>b. Ibipimo ngenderwaho</p> <p>i. Gukoresha umutarimba usongoye kandi ufite ibiwurinda nk'uko bigaragara ku mbonerahamwe ya mbere</p> <p>ii. Gutangirira ahameze neza ugenda ujya ahameze nabi.</p> <p>iii. Kugira aho gukorera heza hajyanye n'ibyashyiriweho umutekano.</p> <p>iv. Kugira ahantu hitaruye no kwirinda ukugwa kw'amabuye</p> <p>v. Gukubita urutare kugira ngo harebwe urwenda kugwa bumva urusaku ruto n' urusaku ruri hejuru rwerekana urutare rumeze neza.</p> <p>vi. Gukuraho urutare rurereta ukoresheje impera y'umutarimba no kongera ahacitse ukoresheje ahasongoye</p> <p>vii. Kugenzura amabuye aregetse adashashe neza no gushyiraho ibiyafata.</p> <p>viii. Kwirinda guhagarara muni y'amabuye adafashe igihe hategwa ashobora kugwa</p> <p>ix. Amabuye aregarega adashobora kumanurwa, aterwa intambi cyangwa akubakirwa.</p> <p>x. icyuma cyo kugenzura ko urutare rukomeye muri metero 3 m hejuru.</p>
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		 <p>Imbonerahamwe 1- Kubuza amabuye kugwaturinda umutekano hakoreshejwe icyuma kibipima</p>  <p>Imbonerahamwe ya 3 - Icyuma gipima (ubwoko bumwe)</p>
<p>4.2.6</p>	<p>Uburyo bwo koza gufata cyangwa gusukura imyobo</p>	<p>a. Kwizera ko imyobo ibanza ishobora gukorerwaho no gusukurwa.</p> <p>b. Gusukura ahatoborwa n'amazi.</p> <p>c. Gukoresha akuma gakoze mu muringa wemewe kugira ngo usukure imyobo. Imifuka ibiri yo gushyiramo ibikoresho n'ibice byasigaye ku ntambi zakoreshejwe.</p> <p>d. Amatiyo y'umuringa wemewe</p> <p>i. Itiyo igomba kuba ari ndende kurusha umwobo wo gusukura.</p> <p>ii. Igomba kuba ikoze mu bikoresho bidatanga ibishashi kandi igomba kuba yihinye kuri degere 90 kugira ngo umukozi ari kure y'icyerekezo cy'umwobo asukura</p>

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<p>4.2.7</p>	<p>Uburyo bwo kwerekana ahagomba gutoborwa</p>	<p>a. Gufatisha umunyururu sheviye y'inyuma n'umunyururu sheviye y'imbere kuri sheviye zo ku gisenge. Kugenzura uburebure bw'umunyururu kuva ku gisanduku kugeza imbere ahagomba gukorwa igenzura</p> <p>b. Gushyira umutekano ku murongo wubatswe kuri sheviye ku murongo w'iruhande, buri yose inyura ku murongo uri ku rundi ruhande rw'urumambo. Kugenzura ko imirongo yubatswe ikweze kandi iteganye.</p> <p>c. Umuntu areba hagati y'umunyururu w'icyitegererezo agategeka umufasha gushyiraho ibimenyetso bitatu byo guheraho akoresheje ikaramu</p> <p>d. Gushyira ivisi ku mirongo yubatswe no gusaba ufasha uri imbere gushyira utudomo dutatu duteganye two guheraho. Ikimenyetso gishyirwa hagati ikindi kigashyirwa kuri buri ruhande ahari nibura 1,0 m uvuye ku bituka bitambitse</p> <p>e. Guhuza utudomo two guheraho n'umurongo ukomeza wa 5 cm z'ubugari, kuva ku gisenge ujya ku gikuta, bigatanga umurongo w'icyerekezo</p> <p>f. Guhuza utudomo dutatu tw'ikitegererezo mu buryo bumwe. Guhuza umurongo uri inyuma ku buryo buhoraho n'umurongo wa buri ruhande.</p>
<p>4.2.8</p>	<p>Kugena no gushyiraho umurongo wo hagati</p>	<p>a. Imirongo yo gusiza no kugorora igomba gushyirwaho irangi rikomeje mu gihe cyo kubaka.</p> <p>b. Kuva hagati, gusoma ibipimo by'ubutandukane. Kongeraho ugutanduka iburyo n'ibumoso. Igiteranyo kigabanye kabiri. Ikinyuranyo hagati yabyo no buri gutandukana bigaragaza aho umurongo wo hagati uherereye, uherereye ku murongo uyobora iburyo n'ibumoso</p> <p>c. Gushyira utudomo two guheraho ku murongo wo hagati uherereye ku murongo uyobora. Gushyira irangi ku murongo wo hagati kugeza ku gikuta. Gukomeza gushyira irangi ku murongo wo hagati werekeza inyuma kugira ngo bihatanye n'umurongo uhoraho</p>

<p>4.2.9</p>	<p>Uburyo bwo gushyira ibimenyesho ku myobo yo gutobora</p>	<p>a. Imyobo yo gutobora ishikirwaho ibimenyetso hakurikijwe uburyo bwo gutobora muri mine. Ingwa cyangwa irange bikoreshwa kugira ngo hashyirweho ibimenyetso bigaragara kandi bigumaho igihe cyose cyo gutobora</p> <p>b. Gushyira ibimenyetso ku mirongo iyobora "Machineman's Jumper" no gushyira ibimenyetso ku myobo itoborwa, no gushyiraho icyerekezo cy'imyobo yo kureberaho, hakurikijwe uburyo bwemewe bwo gutobora</p> <p>c. Urugero: guhitamo ahantu hangana na 0.2m x 0.2m x .02m ho gutobora. Gushyiraho ibimenyetso ku buryo bukurikira:</p> <p>i. Imyobo itanu</p> <p>Gushyira ikimenyetso ku mwobo wo hagati, umwobo uhuza cyangwa urimwo ubusa. Gushyira imyobo ine iruhande rwo hagati</p> <p>ii. icyiciro cya mbere cy'imyobo</p> <p>Gushyira ibimenyetso ku mwobo ine kuri buri ruhanda kuri mpande enye yatorenijwe kuro 0.3 m uherye ku murongo wo hagati uhuza imyobo ibiri kuri buri ruhanda</p> <p>iii. icyiciro cya kabiri cy'imyobo</p> <p>Imyobo ine buri wose uri muri 0.4 m uherye ku murongo uhuza buri myobo ibiri iri mu cyiciro cya mbere igaragaza uruhande rufite impande enye ku myobo</p> <p>iv. Imyobo yo ku mpande</p> <p>Imyobo yo hejuru- igaragazwa kuri 0,1 m hasi y'umurongo w'igisenge ku ntera ya 0,6 m. Ibimenyetso bitambitse- bigaragara ku ntera ya 0,1m imbere yaho umurongo utambitse ugurukira, iruhande n'ibumoso, ku ntera ya 0,6 m.</p> <p>v. Imyobo y'indi</p> <p>ishyirwa ku ntera ya 0.1m hejuru y'umurongo w'urukuta mu ntera ya 0,6 m.</p> <p>vi. Imyobo y'inongera</p> <p>Kubera ko hari ibigomba gukorwa, imyobo y'inongera ishobora kuba ngombwa ahatoborwa igihe ibyerekezo bw'imyobo bishobora gutera ibibazo mu ntera ya 0.6m</p>
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Imbonerahamwe ya 4 -Igishushanyo cyerekana imirongo ahagiye gutoborwa

4.2.10 **Umubare w'imirongo ishyirwamo intambi ku rutare rukomeye rucukurwa ikizimu**

Table 2: Impuzandengo y'umubare w'inyobo ishyirwamo intambi mu bucukuzi bukorerwa ikuzimu mu rutare rukomeye.

Urugero	Igiteranyo cy'inyobo ishyirwamo intambi
1.2 x 1.2m	12
1.5 x 1.5m	16
1.8 x 1.8m	18
2.4 x 2.4m	19

4.3 **Amabwiriza agenga imirimo yo gutobora**

- a. Gushyiraho ibikoresho bitobora
- b. Amatiyo yose agomba kuba afatanye n'ibyuma by'ubutare bukomeye bwa "asiye". Ibyuma bw'umuringa ntabwo byemewe. Ibyuma bifatana bigomba kuba buri kimwe cyose cyinjijye mu kindi
- c. Kugenzura ko ibigabanya, amacupa y'amavuta na n'ibindi bikoresho bifunze neza
- d. Kugenzura ko robine z'umwuka zifunze neza igihe bihuzwa na ya nyundo y'umwuka " Jack hammer"
- e. Igihe bimaze guhuzwa, kurekura umwuka kugira ngo hasuzumwe ko bikora neza
- f. Gufungura amazi gahoro kugira ngo bakomeze kugemurira imashini idahagarara igihe nta mirimo yo gutobora ihari
- g. Kugenzura urufunguzo rw'igipimo na n'urufunguzo rwo kurekura amazi menshi kugira ngo hasuzumye byose bikora neza
- h. Gushyira ibitobora ku mashini itobora

<p>4.4</p>	<p>Gucukura amabuye y'agaciro imbere n'inyuma</p>	<p>a. Gucukura bikozwe n'intoki cyangwa imashini bikorwa hakurwaho urutare rwacukuwe mbere cyangwa ubwa kabiri kandi gutera intambi bigomba gukorwa mu buryo bufite umutekano</p> <p>b. Gutegura ibikoresho hakurikijwe uburyo bukoreshwa, hakoreshwa imashini. Ibikoresho bishobora kubamo imashini, izitwara amabuye, imodoka n'ibindi</p> <p>Urugero, kumenya niba bateri z'imodoka zirimo umuriro, kureba niba hari umutekano n'ibikoresho bikora neza n'ibindi byose bigomba kwitabwaho</p> <p>c. Igihe hari gukoreshwa intoki gucukura bigomba gukoreshwa ibitiyo n'ingorofani,</p> <p>i. Kumenya niba ibirundo by'amabuye cyangwa ubutaka bitose kandi buri gihe</p> <p>ii. Gukomeza akazi ahamanuka uhereye hejuru kugira ngo hirindwe impanuka zaterwa n'amabuye ahanuka.</p> <p>iii. Kumenya ko ubutaka buri ku bikuta bukomeye ku buryo imashini zanyuraho</p> <p>Bikorwa muri ibi byiciro bibiri:</p> <p>a. Gusuzuma ibikuta bw'indake, no gusuzuma uburyo gutera intambi n'ubukomere bw'inkuta bimeze neza</p> <p>b. Gukosora ibishobora gutera ibyago. Ibibuye bijagaraye hirya no hino bigomba kwitonderwa, bigakurikiranwa nta kuzuyaza</p> <p>c. Kugeza umwuka nibura muri 5 m z'ahacukurwa</p> <p>d. Kubuza amabuye aregetse guhanuka</p> <p>e. Koza ibikuta mu ndake, ahacukurwa, no kumea amazi ku birundo by'ibitaka kugira ngo ivumbi ryoye gutumuka, ndetse no kuyungurura ibyuka byose</p> <p>f. Gushakisha aho intambi zapfubye mu ruhanga rw'indake. Niba habonetse, gushyiraho utuyoboro tw'amashanyarazi. Imyobo yagaragajwe yapfubye, ishyingirwaho ikimenyetso cy'uruziga hakoreshejwe ingwa idasibama cyangwa hakoreshejwe irangi, hakandikwaho amagambo ngo "Hapfubye".</p>
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<p>4.5</p>	<p>Gutunganya ahakorerwa ubucukuzi n'uburyo bwo gusimburana mu makipe</p>	<p>a. Gufunga robine z'amazi, ibizingo by'amatiyo no kubibika mu buryo bikora umusaraba. Gusiga ibitanga umuyaga n'ibiyunganira bisohora umwuka</p> <p>b. Gusukura ahakorerwa ubucukuzi, gukingura amadirishya no gucunga amazi</p> <p>c. Gusubiza ibikoresho mu bubiko cyangwa ahandi bigomba kuba.</p> <p>d. Ibikoresho byose bikenerwa, imiba y'inkwi n'ibimbi byose bigomba gushyirwa ku murungo</p> <p>e. Gusukura ahantu hose hanyanyagiye ibisate by'amabuye</p> <p>g. Ibibazo biri mu bikoresho bigomba kugaragazwa kandi bikandikwa</p>
<p>4.6</p>	<p>Gucukura mu mpera ebyiri za mine cyangwa indake</p>	<p>a. Iyo indake ijya mu yindi ndake nayo ikora, kandi intera iri hagati yazo ikaba ari 10 m, hagomba gukorwa ibi bikurikira:</p> <p>i. Impera imwe yonyine niyo igomba gukorwamo</p> <p>ii. Iyahagaritswe ishyirwaho uruzitiro, rugashyirwa mu ntera itanga umutekano</p> <p>iii. Idakora irasukurwa kandi igasuzumwa. Isukurwa n'amazi afite ingufu</p>
<p>4.7</p>	<p>Gukorera ku mpera ebyiri hari amazi cyangwa gazi</p>	<p>a. Iyo Mine izamo amazi cyangwa gazi, ushinzwe mine washyizweho n'Umuyobozi cyangwa Tekinisiye agomba kumenya amakuru ari ahacukurwa. Agomba kumenya no gusesengura neza ingamba zifatika abakozi bagomba gukurikiza igihe hagize ikiba</p> <p>b. Ugutobora gukozwe neza kugomba guhera ahakorerwa kandi hakaba imyobo ihagije kandi ifite uburebure buhagije butuma hamenyekana niba hari amazi cyangwa gazi</p> <p>i. umuntu ubifitiye ububasha, washyizweho n'ucukura mine agomba kugenzura ibice byose bya mine igihe habaye umwuzure</p> <p>ii. Ibi bikorwa uko amakipe asimburana</p>

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4.8	Inkingi zifite ingori z'umutekano zo kubaka	<p>a. Inkingi z'umutekano zihitwamo ku hacukurwa zishingiye ku miterer ya jewoloji y'urutare rwaho</p> <p>b. Umu Tekinisiye uri gucukura agomba gusuzuma ko inkingi z'umutekano zifite ubunini buhagije, zubatswe kugira ngo zibuze igisenge kugwa mu bihe bikurikira:</p> <p style="margin-left: 20px;">i. Inkingi iri hejuru y'indake ya mbere itambitse aho bamanukira</p> <p style="margin-left: 20px;">ii. Inkingi igaragaza intera hagati y'inzira ebyeri ziteganye, indake cyangwa ahagana hasi</p> <p style="margin-left: 20px;">iii. Inkingi ziri hejuru y'umwobo</p>
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5.0 GUTURITSA INTAMBI

	AMABWIRIZA	IBIGOMBA GUKORWA
5.1	Uburyo bwemewe bwo gupakira intambi	<p>a. Abantu bemewe nibwo bagomba guturitsa intambi kandi bagomba kwita kuri ibi bikurikira:</p> <p style="margin-left: 20px;">i. Kumenya niba imyobo igiye gushyirwamo intambi isukuye neza.</p> <p style="margin-left: 20px;">ii. Kwita k'umutekano wa buri muntu ufasha mu mirimo yo gupakira intambi, abo bitareba bagomba kujya ahantu hitaruye hafite umutekano.</p> <p>b. Imyobo yose ishyirwamo intambi igomba gushyirwamo amasasu mu gihe cyateganyijwe kandi kigereranyije, mbere yo guturitsa.</p> <p>c. Mu gihe ku mpamvu runaka, iyo myobo isigaye yonyine ntawe uyicunga mbere y'uko intambi zituritswa, ushinzwe guturitsa intambi agomba kureba neza ko ahantu hose abantu bashobora kwinjirira hafunze, kandi hagashyiraho n'ibimenyetso byanditseho aya magambo ngol: "HATEZWE INTAMBI, BIRABUJIJWE KUHINJIRA" cyangwa hagashyirwaho abaharinda</p> <p>d. Mbere yo guturitsa intambi ahinjirirwa hose aho bigiye gukorerwa hagomba gushyirwa ibintu biharinda n'inyandiko zibivuga cyangwa hagashyirwa umuntu ukora iyo minirimo mu rwego rwo gukumira ibyago bishobora kuhaturuka bivuye ku bintu bishobora gusimbuka, ivumbi cyanywa imyuka</p>

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	<p>e. Kumenyekanisha ko hariye kuba guturitsa intambi hakoresheje inzogera mpuruza n'ibindi</p> <p>f. Kugenzura ko ituritsa ry'intambi rigiye gukorwa rikorewe mu ntera igereranyije ku hari ibikorwa bwo gutobora cyangwa indi mirimo</p> <p>g. Kutinjira, kwemerera, cyangwa gutegeka undi muntu kwinjira ahakorewe ituritsa ry'intambi kugeza igihe imyotsi irangiriye</p> <p>h. Gutegereza nibura iminota mirongo itatu (30) kuva igihe ituritsa ryabereye mbere yo kwegera aho intambi zapfubye hazwi cyangwa ahashobora gukekwa</p>
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6.0 GUTEGA MURI MINE

	AMABWIRIZA	IBIGOMBA GUKORWA
6.1	Amabwiriza yo gutegesha ibiti muri za mine	<p>a. Uburyo bwo gutega bugomba gushyirwaho, gutoranywa, gukoreshwa, kwitabwaho no gukurwaho hashingiye ku miterere y'urutare.</p> <p>b. Umuyobozi cyangwa Tekinisiye ashiraho umukozi ugomba gukurikirana imirimo yo gutega ahacukurwa. Kubera iyo mpamvu igihe cyo gushyiraho cyangwa gukuraho ibyategesheje bya mbere by'agateganyo ni ingenzi cyane. Uretse gusuzuma no gushyiraho uburyo bwizewe, uwo mwanya ugomba guhabwa agaciro ku buryo bw'umwihariko.</p> <p>c. Gutega ikuzimu muri mine ntoya zidateye ibibazo bigomba kwibanda mu gushyiraho no kwita kubiteze ahashobora gutera ibibazo, inzira zo kunyuramo zingenzi, indake n'izindi nzira</p> <p>d. Ibiti bigomba gukoreshwa mu gufata ibyacukuwe mu butaka bubu cyangwa ubucukuzi bw'agateganyo. Ibiti bishobora gukoreshwa mu nzira zinyurwamo, aho ibikoresho biri, ahacitse n'ahandi hose hacukuwe cyangwa aho bishobora gukoreshwa hashingiye ku buterere bwaho.</p> <p>e. Ibiti bifite mpande enye bikoreshwa mu nzira zingenzi, ibiti bitatu bikoreshwa ahatoya ibindi bigakoreshwa hakurikijwe uko indake imeze kugira ngo bifate igisenge n'inkuta z'iruhande.</p>

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6.1.2	Ibikoresho n'ibikenerwa mu kubaka indake hakoreshejwe ibiti	a. Ibikoresho bikenewe mu gufatanya ibiti ni ibi bikurikira: Imifuniko y'imbaho, imisumari (ingana na 100 mm kugeza 150 mmm) inyundo ya 4 kg, ibyuma bwo gufatanya,.
6.1.3	Gutegura gutegesha ibiti	a. Gutega bigomba gukorwa hakiri kare kandi n'inzira z'umutekano zigomba gukurikizwa. Mu bice ubutaka butameze neza, ibindi bintu by'umugereka bigomba gushyirwaho ako kanya kugira ngo haboneke aho gukorera heza b. Gushaka amakuru cyangwa igishushanyo cyerekeye ubwoko bwo gutega n'igice cyo gutega. Igice kigomba kugenzurwa harebwa ibikenewe n'aho byashyirwa, kugena aho guhera, gushyiraho ibimenyetso byerekana ubuhaname n'imirongo yo hagati hafi y'igice kigiye gukorerwaho. c. Iyo bibaye ngombwa gutegura fondasiyo zidasanzwe zo kubakiraho za beto zirategurwa. Ibi bikorwa bigomba gukorwa mbere.
6.1.4	Gushyiraho ibitega by'ibiti	a. Ibiti bishyirwa hagati ahakorerwa ubucukuzi mu cyerekezo no ku madarajya. b. Imirimo y'ibanze igomba kuba irimo. i. Kuringaniza no gusukura ibikuta. ii. Gutwara ibikoresho aho uzubaka. iii. Kurinda no gusukura, nko gushyiraho ibirinda ibiti ku mitwe. iv. Kugena hagati n'imirongo inyuranye c. Kubaka ibiti hamwe. i. Gucukura kugeza ku rutare rukomeye cyangwa gusiza iyo ari ngombwa niba nta fondasiyo yashyizweho mbere. Niba intera hagati y'ibiti yaragenywe mbere, ahagomba gushyirwa ikirenge hagomba kubanza gutegurwa ii. Gushyiraho aho ibiti bifatanira - guca aho ibiti bifatanira ku biti bibiri byiburungushuye, 225mm x 225mm cyangwa 200mm x 100mm. Ku biti bifite impande enye zingana, ibi bikatwa mu buryo bwa mpande enye ku mutwe. Ibiti by'impande enye bikatwa muri degere 5 ku mpande zombi ku buryo aho bifatanira bibogamira ku degere 85 ku byubatswe kugira ngo hataba kwiheta.

		<p>iii. Gushyira aho ibiti bifatanira kuri buri ruhande uhereye ku murongo wo hagati. Kugira ngo hasi hakomeze guhagarara neza, guteramo igiti cya 200mm x 50mm ku ruhande rwo hanze, kubishyira hagati no kubitera ku gikuta.</p> <p>iv. Ingofero - Gupima, gutema no gushyira umufuniko hejuru y'igiteranyirizo. Bishyirwa ku bikuta hakoreshajwe amabuye, harimo inguni ntoya.</p> <p>v. Gusakara - Hamwe n'abakozi batega ibiti, gupima intera iri hagati yaho ibiti bifatanira kugera ku mufuniko. Gutema igiti gifite 200mm x 50mm y'ubutambike bukenewe no kugitera ku biti bibihuza mu buryo buhagaze aho bifataniye uhereye hasi kugera ku mutwe.</p> <p>vi. Gupfundika - Gupima intera iri hagati yaho igiti gishingiye. Guca igiti kingana na 200mm x 50mm no kugifatanya n'ikindi bigakora aho igiti gihagara (ibi bikorwa ahatari fondasiyo).</p> <p>vii. Gufanya ibiti - Gupima 1.8m hagati no hagati kugira ngo hashyirweho ibiti bikurikira. Kubaka ku buryo bumwe nk'ibya mbere. Guteranya ibiti bya 200mm x 50mm hasi kuri buri ruhande, kuri 0.6m uvuye ku gikuta no kuri 0.3m uturutse ku mufuniko nkutandukanya. Ibitandukanya bigomba gupfundika igice cy'ubugari kugira ngo ibindi bize kubona aho bijya.</p> <p>viii. Igisenge no gutandukanya - Hejuru ku mufuniko hejuru ya buri giti, gushyiraho 200mm x 100mm z'ibiti umufuniko ku mufuniko no gushyiraho ibiti bimeze kimwe bitandukanyijwe n'intera ya 0.5m. Ibi biba bigize igice cya mbere cyo kubaka.</p> <p>ix. Kubaka gutambitse - Gushyiraho amalati angana na 200 mm x 50mm afata ku ruhande rw'inyuma. Intera ya 0.3m igomba kuba hagati y'inyubako zitambitse.</p> <p>ix. Igisenge cy'inyongera - Umurongo ukurikira w'ibiti ushyirwa hagati mu murongo uri hasi, n'ukuvuga kuva ku gikuta gitambitse kugera ku kindi mu ntera ya 0.5. m.</p> <p>x. Igisenge cy'inyongera - Umurongo ukurikira w'imbaho ushyirwa ku murongo wo hasi, ni ukuvuga kuva ku gikuta gitambitse kugera ku kindi hagenda harimo intera ya 0.5</p>
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		<p>xi. Pony set - Iyo ibitaka byavuye ahacukuwe ku ntera ya 1,2 m hejuru yahubakishije imbaho, hashyirwaho uburyo bwo kuharinda. Ibiti de 0.5 by'uburebure bikatwa kuri degere ya 5 ugereranyije n'impera z'impande zombi. Ibi bishyira hejuru y'ahubatswe, hamwe n'ingofero n'igisenge cy'inyongera kugeza igihe igikuta gifata.</p> <p>xii. Imifuniko y'inyongera - Iyo ubutaka bwavuyeho kugera kuri 0.5m hejuru y'inyubako y'ibiti, imifuniko y'inyongera ishyirwaho.</p> <p>xiii. Ingofero zishyirwa ku biti bya mbere ku buryo busanzwe. Ku ruhande ruriho ubutaka buri hejuru, hamwe na n'igipande kimwe cyangwa byishi bishyirwa ku hafungira hejuru yaho ibiti bihagaze.</p> <p>xiv. Ingofero ishyirwaho kugirango ifate igice kimwe k'uruhande rumwe no hejuru k'ururuhande rw'igisenge.</p> <p>xvi. Iyo ibisanduku bibiri bifatanye, inkingi zibifata n'inkingi z'agateganyo bishobora gukurwaho.</p> <p>xvi. Inguni z'ibiti zikomeye zigomba gukoreshwa cyangwa imwe muri zo. Inguni zose zose zigomba kubakwa ku buryo bukomeye ku buryo bizamara igihe inyubako y'indake izamara</p>
<p>6.2</p>	<p>Amabwiriza yo kubaka indake hakoreshejwe ibiti</p>	<p>a. Ibiti bishyigikira ku buryo buziguye Ibiti byubatse indake bigomba kugira ubushobozi bwo gufata ibipande byose byashwanyutse</p> <p>b. Ugukomera ku biti biri hamwe. Ibiti bigomba gukomera biri hamwe kugira ng bishyigikire ku buryo bukomeyec. Impamvu zo kubaka indake n'ibiti.</p> <p>Ibiti by'indake bigomba kubakwa nk'inkingi mu nzira zifite ubugufi buto kugira ngo hacugwe itandukanya ry'ubutaka, gutaka kwibitare cyangwa kugwa kw'igisenge</p>

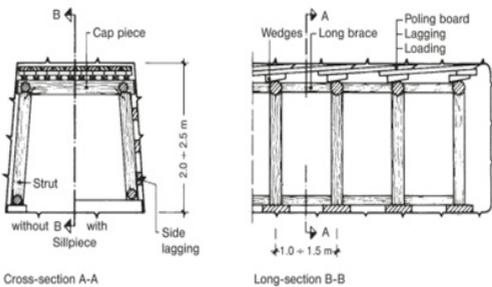
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<p>6.2.1</p>	<p>Ibigomba kwitabwaho mu kubaka indake hakoreshejwe ibiti</p>	<p>a. Igisenge cy'ibiti cya 225mm x 225mm, inkingi z'ibiti byiburungushuye za 200mm x 100mm, inguni z'ibiti zikomeye n'ibikoresho byo kubaza.</p> <p>b. Ahagiye kubakwa hagomba kuba hisanzuye n'ibikuta bikomeje. Iyo ahubakwa ari hanini ni bwiza haruta kujya hejuru.</p> <p>c. Amazi yongera ubuhehere mu giti niyo mpamvu ibiti bigomba gukoreshwa byumye. Ibiti binini ntabwo amazi kubera ko bikomeye kandi bitoha bucyane cyane</p> <p>d. Ibitaka byo gutsindagira ahacukuwe - Ibisigazwa byatoranyijwe nibyo bikoreshwa.</p>
<p>6.2.2</p>	<p>Gutegura kubakira indake hakoreshejwe ibiti</p>	<p>a. Gutunganya igikuta no gusiza.</p> <p>b. Gucukura, koza no gushyigikira</p> <p>c. Kuzana ibikoresho byose ahakorerwa ubucukuzi.</p> <p>d. Kubaka fondasiyo ya beto iyo hakoreshejwe umuzingo w'ibiti bivanze.</p> <p>e. Ku mizingo y'ibiti, ikirago gikorwa mu byuma mbere.</p>
<p>6.2.3</p>	<p>Kubaka mu ndake hakoreshejwe ibiti</p>	<p>a. Gushyigikira no gushikamiza ibiti bibiri biri ku ruhande rwo hasi rw'ahategwa, igihe igikuta gifite ubuhaname buri hejuru ya degere 5. Iyo igikuta kigorotse, ntabwo ari ngombwa gushyira ku ruhande rw'iburyo.</p> <p>b. Gushyiraho igiti cya mbere cy'ifatizo kugera ku gikuta gitambitse. Igiti cya kabiri gishyirwa ku ntera ya 0,3 m y'icyambere.</p> <p>c. Gushyiraho igiti cya mbere ku buryo kijya ku gikuta kiri inyuma kandi hejuru y'ibiti bya mbere byashyizweho iruhande rw'ahacukuwe. Gukora k'uburyo ibiti bya kabiri bizamuka kandi bikamanuka kugeza ibiti by'ibanze bikomeye.</p> <p>d. Gushyiraho ibindi bita by'ifatizo byerekeye ku gikuta gitambitse hari intera ya 0,3 m hagati yabyo.</p> <p>e. Kuzaza imyanya iri hagati y'ibiti by'ibanze n'ibiti byo ku ntera ya kabiri; ibisigazwa byatoranyijwe bigomba gukoreshwa mu kuzaza no gutsindagira ahacukuwe.</p> <p>f. Gushyiraho ibiti bikurikira ahakozwe. Buri giti kigomba gukatwa, kugira ngo kigere iruhande rw'itsinda ry'ibiti kugera ahari urutare ku gice gitambitse, harimo intera ya 0,3 m.</p>

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		<p>g. Kuzuza urwego rwa kabiri ukoresheje ibikoresho byo kuzuza.</p> <p>h. Gukomeza gushyiraho ibiti mu buryo bumwe nk'ibya mbere mu cyerekezo kimwe.</p> <p>i. Kubaka indake kugira ngo ifate igisenge. Guhagarika no gushikamira igikuta cy'igisenge</p>
6.3	Ubundi buryo bwo kubaka indake -Gukoresha ibyuma bikomeye bikoze muri asiye	<p>a. Mu gucukura urutare rukomeye, kubaka indake bishobora gukorwa k'uburyo bworoshye hakoreshejwe ibyuma cyangwa beto cyangwa byose hamwe</p> <p>b. Ibyuma bikoze muri asiye mu bucukuzi bwa mine cyangwa mu bice byangiritse. icyo gihe ntibishoka gukoresha za bulo cyangwa sheviye mu rutare cyangwa ibyuma bikoze muri asiye</p> <p>c. Kubaka mu ndake muri mine ntoya ntibikunda kubaho kuko ibiti bihenda</p>
6.4	Ubundi buryo bwo kubaka indake - Gufungisha bulo igisenge	<p>a. Imiterere y'urutare niyo igena uburyo bwa bulo bukoreshwa. Uburyo bukunda gukoreshwa iyo imiterere y'ubutaka isaba ko urutare rukomezwa kandi rukajya hamwe n'urutare rukomeye</p> <p>b. Mu gukoresha ibyuma byo gushyikira niho hakunzwe gukoreshwa uburyo bulo.</p>
6.4.1	Ibyangombwa by'ibanze mu gushyira bulo mu gisenge	<p>a. Ibikoresho bwo gutobora, ipombo banyonga yo gukurano imyanda n'ibindi bikoresho</p> <p>b. Igiti kingana na 200mm x 100mm timbers cyo gushyigikira ibyuma.</p> <p>c. Amataratara y'umutekano, uturinda guhumeka umwuka mubi two ku mazuru no ku munwa, imyenda idashobora kwinjiramo amazi.</p> <p>d. Sheviye zabugenewe zingana na 1,5 m, 1,8 m, 2,1 m cyangwa 2,4 m.</p> <p>e. Imifuka ya sima, ingunguru icyeyemo kabiri ya litiro 201, akayunguruzo (<5mm y'utwobo tuyungurura), ibikoresho cyangwa icyuma kivanga, ipamba cyangwa impapuro zishaje n'indobo ya litiro eshanu (5)</p> <p>f. Mu uburyo bwo gutobora n'uko bikorwa</p>

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<p>6.5</p>	<p>Uburyo bwo kugenzura no gucuga neza indake yubakishije ibiti</p>	<p>a. Umuyobozi cyangwa umu Tekinisiye agomba gushyiraho umukozi ugomba gusuzuma ugutwara kose n'inzira zinyurwamo buri cyumweru agashyira raporo y'ubugenzuzi mu gitabo cyabugenewe.</p> <p>Isuzuma rikorwa kuri ibi bikurikira</p> <ol style="list-style-type: none"> i. Imiterere y'inyubako y'indake y'ibiti ii. Ingendo zifatika zibera ahakorerwa iii. Ahantu hashya hakenewe gutegwa
<p>6.6</p>	<p>Igishushanyo cy'indake yubakishije n'ibiti</p>	<p style="text-align: center;">Support illustration</p>  <p style="text-align: center;">Imbonerahamwe ya 3 – Urugero rw'indake yubatswe mu bito</p>
<p>6.7</p>	<p>Ibiti bikoreshwa mu kubakira indake</p>	<p>a. Ibiti bikoreshwa mu kubakira indake bigomba kuba ari birebere kandi bigorotse. Aha harimo imizonobari, ibiti bikomera cyangwa inturusu.</p> <p>b. Mu Rwanda inturusu nizo zihingwa cyane. Zivunika gahoro Iyo ibiro zishobora kwihanganira birenze, ntizikenyuka, zigenda zivunika buhoro buhoro. Ziburira abacukuzi kuko zivunikira ahantu hagaragara</p>

7.0 KOHEREZA UMWUKA MURI MINE

	AMABWIRIZA	IBIGOMBA GUKORWA
7.1	<p>Ibikenewe kugira mine ibone umwuka</p>	<p>a. Ukora ubucukuzi agomba guca izindi nzira cyangwa imiyoboro bigomba kuzana umwuka muri mine. Ibi bituma hagera umwuka wo hanze ahakorerwa, ugatuma haba guhumeka neza no gukorera ahantu hafutse. Izi nzira zigomba kuba ziri ku ntera y'ubutumburuke zitandukanye</p> <p>b. Nta mucukuzi wemerewe kwinjira muri mine ikorera ikuzimu, cyane cyane ahategera umwuka, hatabanje kuba isuzuma ryo kureba niba nta myuka mibi ishobora kuba ihari</p> <p>c. Umuyobozi wa mine cyangwa Tekinisiye agomba kugenzura ko umwuka uhagije kandi ko ugera ahantu hose hakorerwa cyangwa hanyurwa n'abantu</p> <p>d. Ingaruka zo kugira umwuka muke zishobora kuba:</p> <ul style="list-style-type: none"> i. umunaniro ukabije utewe n'uko ubushuhe bwabaye bwinshi ii. imyuka mibi ikomoka mu guturitsa intambi ishobora gutera kubura ubwenge cyangwa gupfa; iii. kwegera cyane kandi kenshi ibiva mu myuka ya mazutu, bishobora gutera ibibazo bw'ubuzima ku kazi, ndetse n'indwara z'ubuhumekero; iv. umunaniro ukabije wa buri gihe uturuka k'ugukorera ahantu hameze nabi v. Urupfu rutewe no kubura umwuka wo guhumeka
7.2	<p>Uburyo byo gutegura uko umwuka ushyirwa muri mine</p>	<p>a. Uburyo bwo gutegura uko umwuka ushyirwa muri mine ikora burerekanwa ku gishushanyo gikurikira:</p> <p>b. Uburyo bwo gushyira umwuka muri mine bugomba kuba bushobora gutanga umwuka uhumekwa ungana na 19%;</p> <p>c. Uburyo bwo gutanga umwuka bugomba gukuraho ubushyuhe no gutanga uburyo bwo gukora bwiza butuma umusaruro wiyongera</p>

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		<p>d. Uburyo bwo gutanga umwuka bugomba kuyungurura cyangwa gukuraho burundu ibyuka bihumanya cyangwa bishobora kugurumana mu gihe imirimo y'ubucukuzi irimo gukorwa;</p> <p>e. Uburyo bwo gutanga umwuka bugomba kuyungurura no gukuraho ibihumanya byatewe n'imirimo inyuranye ikorerwa muri mine (Urugero: Umukungugu, ibyuka, imyotsi, n'ibindi)</p>																
7.3	<p>Umwuka wo guhumeka ukenewe muri mine</p>	<p>a. Umwuka aho abantu bakorera cyangwa bagenda muri mine ugomba nibura kuba ufite 19.5% by'umwuka uhumekwa kandi ntuzenze 0.5% bwa diyogiside ya karuboni kandi ingano n'umuvuduko bigomba kuba bihagije kugira ngo bikureho imyuka ishobora kugurumana guturika na gazi mbi, imikungugu n'imyotsi</p> <p>b. Imbonerahamwe ikurikira igaragaza ingaruka zituruka ku kugabanuka k'umwuka</p> <table border="1"> <thead> <tr> <th>Umwuka uhumekwa uri mu kirere (%)</th> <th>Ingaruka</th> </tr> </thead> <tbody> <tr> <td>19</td> <td>Urumuri rw'itara cyangwa rwa buji rugabanyijeho 50%</td> </tr> <tr> <td>17</td> <td>Ukwiyongera gukabije k'umuvuduko n'igihe cyo guhumeka - Ibi byongerwa cyane niyo hari diyogiside ya karuboni nyishi</td> </tr> <tr> <td>16</td> <td>Urumuli rw'itara cyangwa buii izimije</td> </tr> <tr> <td>15</td> <td>Guta ubwenge no kwiyongera ko gutera ku mutina</td> </tr> <tr> <td>13-9</td> <td>Kuzungera, kuruka, iseseme, kurwara umutwe, iminwa y'ubururu no kugwa muri koma</td> </tr> <tr> <td>7</td> <td>Koma, kumererwa nabi ntunyeganyege, bikavamo impamvu y'urupfu</td> </tr> <tr> <td>Munsi ya 6</td> <td>Biteye ubwoba</td> </tr> </tbody> </table> <p>Imbonerahamwe ya 2- Ingaruka zo kubona umwuka muke wo guhumeka</p>	Umwuka uhumekwa uri mu kirere (%)	Ingaruka	19	Urumuri rw'itara cyangwa rwa buji rugabanyijeho 50%	17	Ukwiyongera gukabije k'umuvuduko n'igihe cyo guhumeka - Ibi byongerwa cyane niyo hari diyogiside ya karuboni nyishi	16	Urumuli rw'itara cyangwa buii izimije	15	Guta ubwenge no kwiyongera ko gutera ku mutina	13-9	Kuzungera, kuruka, iseseme, kurwara umutwe, iminwa y'ubururu no kugwa muri koma	7	Koma, kumererwa nabi ntunyeganyege, bikavamo impamvu y'urupfu	Munsi ya 6	Biteye ubwoba
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7.4	Gukurikirana ibyuma bitanga umwuka	<p>a. Mu bucukuzi bukorerwa ikuzimu hatari umwuka uhagije, ibyuma biwutanga bigomba gushyirwamo kugira ngo bitange umwuka ukenewe mu mirimo.</p> <p>b. Ibyuma bitanga umwuka bishobora gukoresha umwuka uturuka muri kopereseri cyangwa ku mashanyarazi.</p> <p>c. Kwizera ibirebana n'amashanyarazi n'imikorere y'ibyuma bitanga umwuka bikora neza, buri kopereseri na buri byuma bitanga amashanyarazi n'ibindi byuma bikoresherezwa hamwe bigomba gukurikirana n'umukozi ubifitiye ubumenyi</p> <p>d. Mu gukurikirana icyuma gitanga umwuka na koporozeri, hakoreshwa ibitabo kugira ngo hasuzumye imikorere y'imashini kandi amakuru akurwamo buri muni mbere yuko akazi gatangira.</p> <p>e. Kugenzura ubushobozi bw'ibyuma bitanga umwuka muri mine yose kugira ngo akazi gakorwe.</p> <p>f. Gukurikirana no gushyira umwuka ahacukurwa hose</p> <p>g. Gukurikiza uburyo bwo kwinjira muri mine yaturikirijwemo intambi</p> <p>h. Gushikariza abacunga amakipe amabwiriza agenga kohereza umwuka ahacukurwa</p>
7.5	Kubuza ibikorwa bishobora kubangamira kugeza umwuka ikuzimu	<p>a. Gukoresha imashini, ipombo zikurura amazi zisohora imyuka mibi ntibyemewe:</p> <p style="margin-left: 20px;">i. Keretse iyo mu mirimo minini hari umwuka ushobora gutuma zikora kandi igenzura rigomba gukorwa buri gihe bikandikwa kandi abagenzuzi ba mine bagashobora kubibona igihe icyo aricyo cyose</p> <p style="margin-left: 20px;">ii. Igihe cyose hatari uburyo bukumira imyotsi ya mazutu, imashini ntizemewe gukoreshwa</p> <p>b. Gukoresha buji ntabwo byemewe muri mine zikorera ikuzimu</p> <p>c. Gukoresha ibintu bisohora imyuka mibi, umuriro waka cyangwa ibindi ntibyemewe</p>

8.0 KARIYERI N'UBUCUKUZI BUKORERWA AHAFUNGUYE

	AMABWIRIZA	IBIGOMBA GUKURIKIZWA
8.1	Umutekano muri mine ifunguye n'ubucukuzi bwa kariyeri	<p>a. Mu bucukuzi bwa Mine ifunguye n'ubwa kariyeri aho uburebure burengeje metero 3 kandi hakoreshwa intambi, gutobora bigomba gukorerwa hejuru</p> <p>b. Ahacukurwa ntihagomba gutoborwa ku buryo ahacukuwe hasigara ibinogo, ahacukuwe n'impande bigomba gucukurwaho (bivuze gucukura hakurikijwe inguni yabugenewe) kugira ngo bitagwa</p> <p>c. Ahacukurwa ntihagomba gutoborwa ku ruhanga rw'imbere keretse iyo hateganywa gucukura indake cyangwa umwobo bamanukiramo bajya gucukura</p> <p>d. Iyo umuntu akorera munsu ya kariyeri cyangwa kuri kariyeri, amabuye ashobora kumugwira akurwaho</p> <p>e. Ahantu hegereye insisiro, Umuyobozi ashobora gushyiraho uruzitiro kugira ngo abantu batahinjira</p> <p>f. Ahacukurwa hafunguye abantu ntibemerewe kugenda iruhande rwaho. Bagomba kugenda nibura muri 2,5 m zaho.</p> <p>g. Ibyacukuwe binyanyagiye hejuru cyangwa biri ahacukurwa bigomba gukurwaho kugira ngo habe umutekano nibura muri 2 m</p> <p>h. Ahacukurwa n'amaboko ntihagomba kurenza 1,5 m keretse hacuranye ku buryo haba umutekano w'abantu</p> <p>i. Iyo imashini zikoreshwa mu gucukura no gupakira, ingamba zigomba gufatwa kugira ngo uzikoresha cyangwa undi muntu uwari we wese adahura n'ibyago biziturutseho</p>
8.2	Uburebure bw'ahacukurwa	<p>a. Ubucukuzi bukoresha imashini, bukorerwa ahafunguye, bugomba gukorwa hashingiye ku gukomera no ku miterere y'urutare. Uburebure bw'urutare rworoshye ntibugomba kurenza 5 m.</p> <p>b. Ubugari bw'ahacukurwa bugomba kubarwa hakoreshajwe forumile SME $\text{Ubugari bw'ahacukurwa (m)} = 0.2 \times \text{uburebure} + 4.5 \text{ m; byagenywe na "SME Mine Engineering Handbook (1992)"}$</p> <p>c. Uburebure n'ubugari bwitwa "Berm" bushobora kuva muri forumile $\text{"Berm height} = 1\text{m} + 0.04\text{H (H= 10m) (Kennedy)"}$</p> <p>d. Mu bucukuzi bukorwa n'intoki, ucukura agomba kureba ko ahacukurwa hatarenza 3 m</p>

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8.3	Ahajugunwa imyanda	<p>a. Kumena imyanda bigomba gukorwa mu buryo busobanutse kandi ubutaka bwo hejuru bushobora kongera gukoreshwa bugashyirwa ahabwo hihariye kugirango buzongere gukoreshwa mu kumeza ibyatsi</p> <p>b. Ahashyirwa imyanda hagomba gutoranywa hakurikijwe ubwoko bw'urutare. Ubwoko bw'urutare nk'monyi, igishonyi, ibumba bimenwa ku buryo ubuhaname butarenga inguni isanzwe yemewe yiswe "inguni y'ikiruhuko". Aho bamena amabuye amenaguye cyangwa naho hazagira inguni itarenze inguni isanzwe. . c. Ahashyirwa imyanda hakorwa ku buryo mu mpande z'ibirundo by'imyanda ndetse no hasi ku birundo, hagashyirwaho urundi ruzitiro rurinda ibyo birundo gutemba. Uburebure bw'ahamenwa imyanda n'imodoka bugomba kuba bungana na 50% bw'uburebure bw'amapine y'imodoka ije kumena.</p> <p>d. Uburebure bw'ikirundo cy'imyanda ntibugomba kurenza metero 10. Kuri icyo gipimo inguni y'ubucurame ntigomba kurenga iy'ikirundo.</p>
8.4	Inzitiro z'umutekano w'ahacukuwe imyobo	<p>a. Ibipimo (uburebure n'ubugari) by'umugugunzi w'umutekano ku mihanda n'ahatwarirwa ibintu hejuru bigenwa hakurikije ibipimo rusange</p> <p>i. Uburebure = 50% by'umurambararo w'ipine</p> <p>ii. Ubugari = $2 \times \text{uburebure} / \tan 350$</p>
8.5	Gutobora no gutera intambi	<p>a. Mine igomba gushyiraho uburyo bwo gutunganya umutekano w'ibikoresho bicukura, ibipakira n'ibitwara ibintu</p> <p>b. Amabwiriza yerekeye guturitsa intambi ya Minisiteri agomba gukurikizwa mu mirimo y'ubucukuzi</p>
8.6	Uburyo byerekeye umutekano w'ibikoresho bwa mine	<p>a. Mine igomba gushyiraho uburyo byerekeye umutekano w'ibikoresho bicukura, ibipakira n'ibitwara ibintu kugira ngo habe umutekano w'abahakora, abakozi n'ibikoresho</p>

9.0 KOPOROSERI ITANGA UMWUKA NO KUMURIKIRA AHACUKURWA IKUZIMU.

	AMABWIRIZA	IBIGOMBA GUKORWA
9.1	Koporeseri itanga umwuka mu ndake - Ibisabwa muri rusange	<p>Buri koporoseri itanga umwuka, ikoreshwa mu bucukuzi bw'ikuzimu, igenwa, ikubakwa, igakora kandi ikagenzurwa ku mpamvu zikurikira ;</p> <ol style="list-style-type: none"> a. Umwuka winjira muri koporoseri ugomba kuba utanduye kandi wumutse, ari mwiza ushobora gukoreshwa; b. Amavuta yaugenewe, akozwe mu bikoresho bizwi cyangwa yakozwe ku buryo bwihariye niyo yonyine akoreshwa muri koporoseri; c. Serivisi zigomba kuba zifashe neza kandi ntizikoreshwe indi mirimo kandi zigomba kuba ari izabugenewe d. Serivisi zo gutwara n'izo kugenda (harimo inzira zo kugendamo) zigomba gushyirwaho ku buryo zikoresha neza abantu n'ibikoresho e. Amatiyo anyuramo umwuka agomba kuba afatanyijwe n'ibikoresho byabugenewe f. Nta gusana bigomba gukorwa igihe serivisi zose zirimo gukora.
9.2	Kumurikira ahakorerwa ubucukuzi ikuzimu - Ibisabwa muri rusange	<ol style="list-style-type: none"> a. Buri mine igomba kugira umuriro uhoraho ukoreshwa n'abakozi bakora ikuzimu bakoresha amatara cyangwa amatoroshi, ibi bikoresho bigomba kuba byemewe n'abagenzuzi. b. Ushinzwe mine agomba kugenzura ko buri mukozi ukorera ikuzimu afite ikimumurikira c. Abakozi bafata batiri zuzuyemo umuriro zonyine d. Amatara y'abakozi agomba gukorerwa isuzumwa buri gihe. e. Amatara akoreshwa agomba gusuzumwa mbere yo gukoreshwa ikuzimu f. Amatara akoreshwa ntagomba kujya muri mine adakora neza kandi adafite umutekano g. Amatara akoreshwa muri mine cyangwa amatoroshi agomba kuba amurika neza ahakorerwa kandi batiri zayo zishobora gukora nibura amasaha 8

9.2	Gukoresha umuriro ufite umutekano	<p>a. Iyo umuriro ukoresheya muri mine, ukora ubucukuzi agomba kumenya ko umuntu ubifiye ubushobozi ari mu mwanya kugira ngo akurikirane ibyerekeranye n'amashanyarazi byose.</p> <p>b. Ibikoresho byose by'amashanyarazi bikora bigomba kuba byujuje ibisabwa, biteguwe, biri aho bigomba kuba kandi bifite umutekano</p> <p>c. Kwitabwaho no gukoreshwa k'uburyo bwirinda impanuka</p> <p>d. Igihe habaye ikibazo cya sirikwi mu bikoresho bitanga amashanyarazi hagomba guteganywa uburyo buboneye bwo guhagarika umuriro mu rwego rwo kwirinda impanuka</p> <p>e. Mu rwego rwo kwirinda impanuka, hagomba guteganywa uburyo bwikoresha kugira ngo bwifunge igihe habaye sirikwi mu bikoresho no mu ma mashini</p> <p>f. Ahari santarali y'amashanyarazi ndetse n'ibikoresho bitandukanye birimo amashanyarazi kuri sitasiyo zinyuranye z'amashanyarazi hagomba kuzitirwa hagashyirwaho n'ibyapa bibuza abantu bose batahakora kutahinjira</p> <p>g. Ibintu bigurumana cyangwa bishobora guturika ntibigomba gushyirwa ahantu bishobora guteza impanuka hegereye ibikoresho by'amashanyarazi.</p> <p>h. Igikoresho icyo aricyo cyose gikoreshwa mu gukumira umuriro w'amashanyarazi kigomba kuba cyarabugenewe hakurikijwe urwego rw'uko guhagarika amashanyarazi n'ubukana bwayo</p>
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10.0 IBIKORESHO BIRINDA UMUNTU KU GITI CYE

	AMABWIRIZA	IBIGOMBA GUKORWA
10.1	Ibikoresho birinda umuntu ku giti cye- Ibisabwa muri rusange	a. Ukora imirimo y'ubucukuzi agomba buri gihe guha abakozi, abafitanye nawe amasezerano n'abashyitsi ibikoresho bibarinda kandi agakurikirana ko bikoreshwa neza kandi ko bifashwe neza
10.2	Inkweto z'umutekano	a. Abantu bakora n'abasura ahakorerwa ibikorwa bw'ubucukuzi bagomba kuba bambaye inkweto zabugenewe kandi ukora ubucukuzi agomba kugena aho abantu badashobora kugera batabyambaye b. Inkweto ndende cyangwa inkweto sisanzwe z'umutekano bigomba kuzuzwa ibyagenwe ku mutekano wa mine. Inkweto zo kurinda umutekano zigomba kuba zikomeye hasi ku buryo ntacyakwinjirano kandi zifite n'imbere hakoze mu cyuma kugira ngo amano atangirika
10.3	Imyenda igaragara cyane	a. Abakozi bakora mu bucukuzi bukorerwa ikuzimu cyangwa muri mine ifunguye bagomba kuba bambaye imyenda iriho ibimenyetso bigaragara cyane
10.4	Amataratara	a. Abakozi bakora cyangwa abasura ahakorerwa ubucukuzi bagomba gukoresha amataratara yabugenewe yujuje ibisabwa b. Ukora ubucukuzi agomba kugena ahakorerwa hasaba kwambara amataratara yabugenewe. Amataratara yose agomba kuba yujuje ibisabwa
10.5	Ingofero y'umutekano	a. Nta muntu wemerewe kwinjira ahantu hakurikira hakorerwa ubucukuzi cyangwa kuhaguma atambaye ingofero y'umutekano 1. Muri mine ikorera ikuzimu 2. Muri mine iyo ariyo yose ikorera hejuru keretse abihereke uruhushya n'umuTekinisiye cyangwa Umuyobozi 3. Ahantu hose Umuyobozi yagenye ko ari agace k'u mutekano b. Ingofero zose zigomba kuba zujuje ibasabwa ku mutekano wahakorerwa imirimo y'inganda kandi ikaba ishobora kujyaho itara naho gushyira uturinda matwi

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		<p>c. Gukoresha ingofero z'umutekano ni itegeko mu gihe hashobora kubaho gukomereka mu mutwe. Abakora ubucukuzi bagomba kugaragaza ahantu no kugena ahagomba kwambarwa ingofero</p>
10.6	Imyambaro	<p>a. Ukora ubucukuzi aha abakozi imyenda yo gukorana mu bucukuzi. Imyenda ikoze mu ipamba cyangwa umwambaro w'akazi niyo igomba gukoreshwa muri mine. Ibimenyetso bibonerana bishyirwaho kugira ngo umucukuzi agaragare mu gihe hakoreshwa imashini mu bucukuzi bukorerwa ikuzimu</p>
10.7	Uturinda urusaku two mu matwi	<p>a. Igihe igipimo cy'urusaku kiri hejuru ahakorerwa imirimo y'ubucukuzi, hagira igikorwa kugira rugabanuke iyo bidashoboka hatangwa uturinda-rusaku two ku matwi dukoresha ahantu hose hagenywe</p> <p>b. Abantu bakora cyangwa basura mine yagararagajwe ko hagomba gukoreshwa uturinda-rusaku two mu matwi bagomba kubyubahiriza. Ni ishingano za sosiyeti gutanga uturinda matwi.</p> <p>c. Ukora ubucukuzi afata ingamba zo gukuraho cyangwa zo gukumira urusaku. Uturinda-matwi twabugenewe tugomba gukoreshwa ahantu hari urusaku rurenze urwemewe</p>
10.8	Umukandara w'umutekano	<p>a. Umuntu wese ukora ahantu ashobora kugwa harenze 2 m agomba kuba afite umukandara w'umutekano wemewe na Minisiteri, ugomba kuba uziritse neza ku bindi bikoresho by'umutekano bigendana nawo</p> <p>b. Iyo igifata umutanda ari gito ku buryo kidashobora gukoreshwa hongerwaho umugozi ugomba kuba ukomeye;</p> <p>c. Iyo umuntu umwe cyangwa benshi baziritse ku cyuma cy'umutekano, icyuma kigomba kugenda cyongererwa imbaraga hashingiye ku bantu bakiriho</p> <p>d. Birabujijwe gukoresha umukandara cyangwa icyuma cyo kwizirikaho utabanje kugisuzuma</p>

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Imbonerahamwe ya 5 - Igishushanyo cyerekana ibikoresho bw'umutekano bw'umuntu

10.10 Ibimenyesho bigomba kumanikwa byerekeye umutekano w'umuntu

a. Ukora ubucukuzi agomba kumanika ibimenyetso bikoreshwa mu mutekano w'umuntu nk'uko bigaragara ku mbonerahamwe ya 5 n'iya 6



Fig 6 Ibigomba kuba bihari

11.0 UBUZIMA BW'ABAKOZI

	AMABWIRIZA	IBIGOMBA GUKORWA																				
11.1	Gucunga ikigero cy'urusaku	a. Ipimwa ry'urusaku rikorwa ahantu rushobora kugira ingaruka mbi b. Ipimwa ry'urusaku rigomba gukorerwa ahantu hatoranyijwe mu ruganda cyangwa mu kuzimu hagamijwe kumenya aho ruri. c. Igenzura ry'urusaku rigomba kugaragazai. Ibice abakozi bashobora guhura n'urusaku rukabije bisaba gukoresha ibikoresho byabugenewe; <ul style="list-style-type: none"> ii. Imashini n'ibikoresho bisohora amajwi mabi; iii. Abakozi bashobora kugerwaho n'igipimo gikabije cy'amajwi. 																				
11.2	Ibipimo by'urusaku byemewe	a. Igihe igipimo cy'urusaku kirenze 85 "decibels (dB(A))" inyigo irambuye igomba gukorwa hamije: <ul style="list-style-type: none"> i. Kugabanya urusaku muni ya 85 "dB(A)"; ii. Kugena ahantu hari urusaku rukabije nka hantu harizwe iii. Gutanga ibikoresho byabugenewe mu kurinda amatwi b. Nta muntu ushobora kujya ahantu hari urusaku rurenze 115 "dB(A)" nta gikoresho kimurinzwe afite. c. Ibyuma bipima urusaku bigomba guhora bigenzurwa kugira ngo bishyirwe ku gipimo nyacyo kandi bikaba bipima neza																				
11.2.1	Ibipimo by'urusaku bwo muri mine	Imbonerahamwe ya 3- Ibipimo by'urusaku rusohoka <table border="1"> <tbody> <tr> <td>Bishora kumena isahani cyangwa ikirahure</td> <td align="center">160</td> </tr> <tr> <td>Kugabanya ububabare</td> <td align="center">120</td> </tr> <tr> <td>Imashini ipakira (ya mazutu)</td> <td align="center">100-120</td> </tr> <tr> <td>Urukero rukata ibiti</td> <td align="center">107</td> </tr> <tr> <td>Koporoseri</td> <td align="center">90-100</td> </tr> <tr> <td>Imashini isya amabuye</td> <td align="center">85-106</td> </tr> <tr> <td>Kamyoy'ipakurura</td> <td align="center">85-95</td> </tr> <tr> <td>Imodoka zigenda mu mijyi</td> <td align="center">65-75</td> </tr> <tr> <td>Ibiro bituje</td> <td align="center">50</td> </tr> <tr> <td>Urugero rwo hasi rwo kumva</td> <td align="center">0</td> </tr> </tbody> </table>	Bishora kumena isahani cyangwa ikirahure	160	Kugabanya ububabare	120	Imashini ipakira (ya mazutu)	100-120	Urukero rukata ibiti	107	Koporoseri	90-100	Imashini isya amabuye	85-106	Kamyoy'ipakurura	85-95	Imodoka zigenda mu mijyi	65-75	Ibiro bituje	50	Urugero rwo hasi rwo kumva	0
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11.3	Ubushyuhe	<p>a. Ukora ubucukuzi ashahiraho uburyo bwo gupima no kurinda abakozi ubushyuhe buturuka mu mirimo y'ubucukuzi.</p> <p>b. Umuyobozi n'ukurikirana imirimo bakurikirana ko umutekano, isuku n'ubushyuhe bikurikiranwa.</p> <p>c. Abakora ubucukuzi bashyiraho:</p> <ol style="list-style-type: none"> i. Umukozi wahuguriwe gupima ibimenyetso by'ubushyuhe no gukurikirana abakozi ku byatera indwara ; ii. Gushyiraho ahantu hahehereye hari amazi akonje kandi hegereye ahantu hashyushye hakorerwa;
11.4	Ibimenyetso no kuvura	<p>a. Kunanirwa kubera ubushyuhe</p> <p>Ibimenyetso byo kunanirwa kubera ubushyuhe ni ibi bikurikira: kurwara umutwe, kuzungera, umunaniro, guhindura imyifatire, kuruka, inkari ziragabanuka kandi zigahindura ibara, kugwa igihumure, uruhu rurahinduka. Iyo kurengwa n'ubushyuhe bitavuwe, bishobora gutera indwara.</p> <p>b. Indwara y'ubushyuhe</p> <p>Ibimenyetso ni ukugira uruhu rwumye (nta byuya) umubiri utukura ushyushye (bimeze nko kwicwa n'izuba), guhindura imyifatire, kugagara, kugwa no guta ubwenge</p> <p>c. Ukuvura</p> <p>Indwara zose zituruka ku muriro zigomba gufatwa nk'izikomeme kuko zishobora gutera urupfu bitewe no kubura ubuvuzi. Muganga agomba gushakwa kandi umurwayi akajyanwa kwa muganga</p>
11.5	Amakuru rusange mu gucunga ivumbi	<p>a. Ibikoresho bwo kurinda byabugenewe bigomba gukoreshwa mu kurinda uduce duturuka ku ivumbi kungana na 0.001mm kugeza 0.1 mm (1 kugeza kuri 100 "microns") turi mu muyaga kugira ngo tutagabanya kubona, tudatera indwara mu maso, mu matwi, mu mazuru, mu mihogo, ku mubiri no mu bihaha</p>

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<p>11.5.1</p>	<p>Uburyo bwo kugenzura ivumbi</p>	<p>b. Ingamba zo kugenzura ivumbi zigomba gushyirwa muri gahunda yo kurinda ivumbi hagamijwe</p> <ol style="list-style-type: none"> i. kugenzura no gusuzuma ivumbi riri mu kirerere; ii. gushyiraho ibikorwa bwo kurwanya ivumbi iii. kugabanya ko abakozi bagerwaho n'ivumbi iv. gushyiraho dosiye zerekeye uko abakozi bahura n'ivumbi. <p>c. Uburyo bwo kugenzura ivumbi ahakorerwa imirimo ni ubu bukurikira:</p> <ol style="list-style-type: none"> i. gutobora hakoreshejwe amazi, kuhira ugakomerezaho ii. gushyira umwuka uhagije ahakorerwa cyane ahacukurwa (urugero gushyira umwuka utarimo ivumbi ahacukurwa) iii. kuhira ubutaka igihe hari gusunikwa ibyacukuwe, gupakira amakanyo cyangwa gushyira ibitaka mu byo kubitwaramo cyangwa mu bubiko; iv. gushyiraho abantu batera amazi ahagenwe v. gukoresha uburyo bwo kuhira mu nganda zisya amabuye no kuyavungagura
<p>11.5.2</p>	<p>Kugabanya ivumbi no gufata ibipimo</p>	<p>a. Ikigero cy'umukungugu kibarwa hakurikijwe uko umuntu ku giti cye aba ari ahari ivumbi, mu gie ari mukazi ko gusimburana buri masaha umunani akurikirana abarwa nk'impuzanengo y'igiteranyo cy'igihe amara mu kazi</p> <p>b. Uburyo bwo kugabanya ivumbi bugomba kuba bushingiye ku gufata ibipimo bw'ivumbi</p> <p>c. Gufata ibipimo bw'ivumbi bigomba :</p> <ol style="list-style-type: none"> i. kumenya no gupima ivumbi riri mu kirere abantu bashobora guhura naryo cyangwa guhura naryo mu kazi kabo ii. iyo ingano yaryo idashobora kumenyekana bishingiye ku bipimo byafashwe, ugomba gukeka ko ivumbi rituruka mu rutare rucukurwa cyangwa rutunganwa

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11.5.2	Ibizami byo kwa muganga	<p>a. Abakozi bakora mu mirimo yo gusiza, yo gutwara ibintu ikuzimu, gutera intambi, gutobora, kongera agaciro batanga icyemezo cya muganga ko bashoboye mbere y'umunsi wa mbere w'akazi</p> <p>b. Ibizami byo kwa muganga bikorerwa abakozi bose bikorwa kuri ibi bikurikira:</p> <ul style="list-style-type: none"> i. Ukumva ii. Umuvuduko w'amaraso iii. Uko babona iv. Ibihaha (guhumeke)
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12.0 IBINTU BIRI MURI MINE

	AMABWIRIZA	IBIGOMBA GUKORWA
12.1	Aho inzu zikorwamo imirimo y'ibiro ziba, ibikoresho byo gutabara n'aho gushyira imodoka	<p>a. Inzu zose zikorwamo imirimo y'ibiro, icyumba kibamo ibikoresho by'ubutabazi bw'ibanze bigomba kuba kure y'ahakorerwa ubucukuzi kandi bikaba byoroshye kuhagera</p> <p>b. Ukora ubucukuzi agomba kugira ibikoresho byangombwa bifasha ubucukuzi bimeze neza kandi bwujuje ubuziranenge</p>
12.2	Ubwihereho	<p>a. Ukora ubucukuzi agomba kugira ubwihereho bwiza hafi y'ahakorerwa imirimo y'ubucukuzi, ubw'abagore n'ubw'abagabo bigatandukana</p> <p>b. Ubwihereho buhagije kandi bufite isuku bugomba kuba ahakorerwa imirimo hose kandi bukagira ubuhumekero, urumuri no gufatwa neza.</p>
12.3	Guhindura ibiri mu nzu	<p>a. Iyo gukora imirimo bibisaba, guhindura inzu bireba ibi bikurikira:</p> <ul style="list-style-type: none"> i. Gushyiraho aho kogera habugenewe ku bagore n'abagabo ii. Gushyiraho aho kumesera habugenewe iii. Ubwihereho bwiza ku bagore n'abagabo iv. Aho kubika ibikoresho bwite by'abakozi

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12.4	Ibigomba kuba mu byumba cy'ubutabazi bw'ibanze	<p>a. Kuri buri bakozi 50 bari ahakorerwa ubucukuzi, ukora ubucukuzi agomba kugira icyumba cy'ubutabazi by'ibanze kirimo imiti n'ibikoresho bw'ibanze nk'uko bigenwa n'amategeko agenga umutekano</p> <p>b. Ibikenerwa mu cyumba cy'ubutabazi bw'ibanze biri ku mugereka w'aya mabwiriza</p> <p>c. Mu cyumba cy'ubutabazi bw'ibanze hagomba kubamo igitabo cyandikwamo ibi bikurikira:</p> <ul style="list-style-type: none"> i. uburwayi byasuzumwe, uwakomeretse cyangwa uwarwaye ii. ubwoko bw'ibikomere cyangwa indwara, iii. ubuvuzi bwatazwe, iv. izina ry'uwatanze ubuvuzi, isaha n'igihe byakorewe
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13.0 KUMENYEKANISHA IBYAGO N'IMPANUKA

	AMABWIRIZA	IBIGOMBA GUKORWA
13.0	KUMENYEKANISHA IBYAGO N'IMPANUKA	<p>a. Ugukomereka kose kugomba guhita kumenyeshwa ushinzwe mine</p> <p>b. Inyandiko ikorerwaho raporo igaragaza ibyabaye igomba kuzuzwa kandi ikabikwa mu kigo cy'ubuzima, muri kiriniki cyangwa mu bitaro</p> <p>c. Inyandiko ikorerwaho raporo y'ibyabaye iri ku mugereka w'aya mabwiriza</p> <p>d. Ukora imirimo y'ubucukuzi agomba kumenya ko regisitiri z'ibyabaye n'iyi mpanuka zabaye zikoreshwa neza</p> <p>e. Inyandiko ya raporo y'ibanze igomba kuzuzwa bitarenze amasaha 24 icyago kibaye</p> <p>f. Raporo y'iperereza rya nyuma igomba gukorwa no gushyikirizwa urwego rushinzwe mine bitarenze amasaha 48</p>

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<p>13.1</p>	<p>Impanuka zigomba kumenyekan-ishwa</p>	<p>a. Impanuka zikurikira zigomba gukorerwa raporo kandi zigahita zimenyeshya Urwego rushinzwe mine iyo:</p> <ul style="list-style-type: none"> i. hari umuntu wafufuye ii. hari uwataye ubwenge cyangwa wagiye mu bitaro amasaha arenze 24 amaze guhumeka gazi iturika cyangwa indi gazi y'uburozi cyangwa afashwe n'amashanyarazi iii. impanuka yose ishobora gutuma uwakomeretse agira ubumuga buhoraho <p>b. Impanuka z'ubwoko bukurikira zibaye ahakorerwa ubucukuzi zigomba kumenyeshwa Umugenzuzi wa mine hakoreshejwe uburyo bushobotse bwihuse bwo gutumanaho mu gihe kitarenze amasaha 24,</p> <ul style="list-style-type: none"> i. Impanuka iturutse kwiturika harimo umuriro utunguranye cyangwa guturika kw'intambi ii. Umwuzure mu gice kimwe cy'imirimo cyangwa kugira ibibazo by'urugomero cyangwa ahabikwa amazi yakoreshejwe, cyangwa ibyondo iii. Iturika riturutse ku mpanuka cyangwa umuriro uturutse ku ishya ry'ivumbi, gazi, amavuta cyangwa umwuka; iv. Umuriro wo mu ndake cyangwa umuriro mwishi uturutse hejuru ; v. Impanuka y'amashanyarazi cyangwa gushya bituma umuntu agoba kuvurwa; vi. Ugucukunyuka gukabije kwa mine y'ikuzimu cyangwa ukwika gukabije k'ubutaka kudasanzwe ugeranyije n'uburyo bukoreshwa mu gucukura vii. Kumara igihe kirekire nta umwuka ahacukurwa cyangwa cyangwa igice cyaho; <p>c. Raporo zikorwa hakurikijwe inyandiko yateguwe iri ku mugereka y'aya mabwiriza</p>
<p>13.2</p>	<p>Gusesengura no gushyira mu byiciro impanuka</p>	<p>a. Impanuka igomba gusesengurwa no gushyirwa mu cyiciro hashingiye ku nkomoko zayo zishobora kuba zatewe na:</p> <ul style="list-style-type: none"> i. Inkangu ii. Imashini muri rusange iii. Amashanyarazi iv. Umuriro v. Ibikoresho bw'ubucukuzi vi. Indake vii. Uburyo bwo gushyira umwuka muri mine butameze neza

14.0 UBURYO BWO KURINDA IMASHINI

	AMABWIRIZA	IBIGOMBA GUKORWA
14.1	<p>Uburyo bwo kurinda imashini</p>	<p>a. Uburyo bwo kurinda imashini ni uburyo bwo kumenya aho ingufu z'amashyanyarazi zituruka, ku buryo zidacunzwe neza zatera gukomereka; no gushyiraho uburyo bwo kubigenzura bikozwe n'abandi bantu.</p> <p>Uburyo bwo kugenzura bukorwa ku buryo bukurikira:</p> <p>i. Igice cya 1 – Kumenya ibikoresho bigomba kurindwa. Kwemeza ko ibicana umuriro, vane, iminyururu, ibikoresho byo gufunga n'ibindi byose byo gukoresha bimeze neza nk'uko bigaragara ku mbonerahamwe ya 6</p> <p>ii. Igice cya 2 – Kugena ibikoresho byo kurinda. Kurinda nyabyo ntibishoboka udatandukanyije isoko y'ingufu n'ibikoresho byo gukoresha. Gukoresha ibyatsa umuriro by'ibanze, ibiwuzimya, ibitandukanya, ibicomora.</p> <p>Kudakoresha bimwe mu bikoresho nka buto zisunikwa na komande zimwe na zimwe ziyuranye</p> <p>iii. Igice cya 3 – Gukora kurinda umuriro kwiruka</p> <p>iv. Igice cya 4 – Gupima ko uko kurinda kumeze</p> <p>v. Igice cya 5– Gushyiraho ingufuri cyangwa ibimenyetso ku bintu birinda</p>
		 <p>Fig 6 – Ingufuri yo kurinda</p>

15.0 KUBIKA IBISIGAZWA BY'UBUCUKUZI

	AMABWIRIZA	IBIGOMBA GUKORWA
15.1	Ibika ry'ibisigazwa	a. Ahashyirwa ibisigazwa hagomba kuba ari ahantu hafite umutekano, bishobora kumara igihe kandi hagira ingaruka nke ku bidukikije
15.2	Igishushanyo no gukoresha ahashyirwa ibisigazwa	<p>a. Igishushanyo cy'ahashyirwa ibisigazwa no kuhubaka bigomba gukorwa no kugenzurwa n'ubifitiye inarabibonye ugirana amasezerano n'ukora ubucukuzi</p> <p>b. Mu gihe cyo kuhakoresha, ubugenzuzi n'ikurikirana bikorwa bigomba gukorwa buri mwaka na enjeniyeri ufite ubumenyi bwihariye</p> <p>c. Gahunda yo gusana no gukuraho uburyo bwo kubika imyanda igomba gukorwa na injeniyeri ufite ubumenyi bwihariye kandi hagacungwa n'Umuyobozi cyangwa Eekinisiyi wa mine</p> <p>d. Uyobora mine cyangwa umuTekinisiyi agomba gukurikirana ko mine yashyizeho uburyo bwihutirwa bwo gutaba iyo habaye impanuka</p> <p>e. Igitabo cyandikwamo amakuru y'igenzura rihoraho kigomba kuba gifitwe n'abakozi bari ahashyirwa ibisigazwa</p>
15.3	Amakuru akenewe kugirango hakorwe igishushanyo n'igenzura	<p>a. Ahoinzu igomba kujya, n'amakuru arambuye kuri yo, ibipimo ndangahantu n'igishushanyo kiriho ibipimo bigomba gukorwa</p> <p>b. Umuyobozi wa mine agomba kureba ibigomba kubikwa mu ma toni no kumenya ko inzu ifite ubushobozi bwo kubibika</p> <p>c. Ahashyirwa ibisigazwa hagomba kujya gusa ahabigenewe</p> <p>d. Umuyobozi agomba kumenya ko ubugenzuzi bukorwa ku habikwa ibisigazwa kandi akamenya n'uko hahagaze mu kubahiriza ibidukikije</p>

16.0 UBURYO BWO GUTEGURA GUTABARA BWIHUTIRWA

	AMABWIRIZA	IBIGOMBA GUKORWA
16.1	<p>Gahunda yo kwitegura n'ibisubizo ku bibazo bwihutirwa</p>	<p>a. Ukora imirimo y'ubucukuzi ashiraho uburyo bwo kwitegura na gahunda y'ibikorwa. Gahunda y'ibikorwa iba irimo:</p> <ul style="list-style-type: none"> i. Uburyo bwo gukurikiza igihe hari ugutabara byihutirwa ii. Inzogera y'impuruza igaragaza ko habaye ikibazo iii. Kugena inzira zo gusohokeramo n'uburyo bikorwa iv. Aho abantu bagomba guhurira v. Kubarura abakozi bose bari ahakorerwa ubucukuzi <p>b. Abakozi bahuguwe kandi babifiye ubushobozi nibwo bemerewe kugera ahaganewe ubutabazi kugira ngo bashakire ibisubizo ibibazo bihari</p> <p>c. Ukora ubucukuzi agomba buri gihe kugenzura ko uburyo buriho bwo kwinjira bwamenyekanishijwe</p>
16.2	<p>Ibimenyetso byerekana aho kunyura habaye ibyago</p>	<p>a. Abakozi bagomba gushaka ibimenyetso bigomba kuba ari bimwe mu bikurikira ;</p> 
		

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<p>16.3</p>	<p>Abakozi bahura n'ibintu bw'ubutabire</p>	<p>a. Ahakorerwa ubucukuzi abakozi bagira aho bahurira n'ibintu bw'ubutabire, ibimenyetso bibagaraza gibomba kuba bihari</p>    
<p>16.4</p>	<p>Ibikoresho bizimya umuriro</p>	<p>a. Igihe habaye inkongi y'umuriro abakozi bagomba kwitabaza ibikoresho biwuzimya</p>

		
<p>16.5</p>	<p>Ibimenyetso byerekena ahakorerwa ubutabazi bwihutirwa</p>	<p>Ibimenyetso bikurikira bikoreshwa mu kugaragaza ubutabazi bw'ibanze. Umusaraba ugaragaza agasanduku karimo ibikoresho bw'ibanze cyangwa ahakorerwa ubutabazi</p>
		

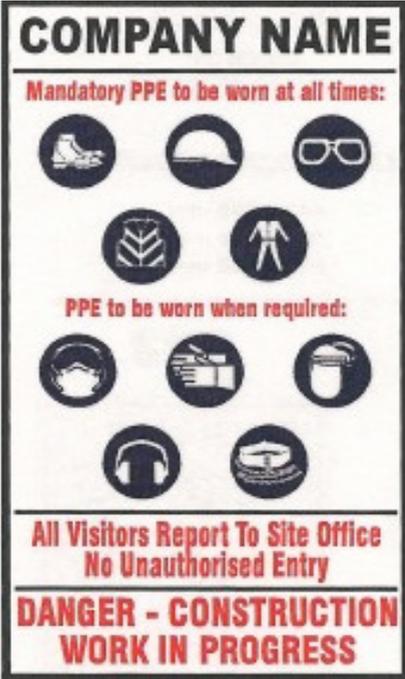
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<p>16.6</p>	<p>Ibigomba gukurikizwa ku muriro w'ikuzimu</p>	<p>a. Ibikorwa byihutirwa iyo habaye umuriro</p> <ol style="list-style-type: none"> i. Umuntu wese ubonye umuriro agomba kubimenyesha ubishinzwe agahita: ii. Avuza inzogera yabugenewe kandi agatabaza iii. Kujanya abantu ahari umwuka abakura ahari umuriro iv. Kubimenyesha ubuyobozi bumwegereye v. Kubuza abantu kwinjira ahafashwe n'umuriro vi. kubuza abantu kwinjira mu gice cyafashwe n'umuriro <p>b. Abantu bari ku ruhande ruturukamo umwuka ntibagomba kunyura mu muriro ahubwo bagomba guca ahari umwuka mwiza kandi hari umutekano bakoresheje indi nzira</p> <p>c. Niba inzira yo gusohoka idashobotse hakoreshejwe ubundi buryo, abakozi bagotewemo bagomba kurekura umwuka wabugenewe kugira ngo bashobore kuba ahantu hari umwuka mwiza</p>
<p>16.6.2</p>	<p>Inshingano z'Umuyobozi cyangwa za Tekinisiye</p>	<p>a. Kugenzura ko abantu bose bagiye ahari umwuka mwiza</p> <p>b. Gushyiraho uwandika cyangwa ufata ibiganiro byose (amajwi cyangwa telefoni), amabwiriza yatanze n'ayakiriwe hagati y'abari hejuru n'abari ikuzimu hakorerwa ubugenzuzi</p> <p>c. Gushyira umwuka mwiza ikuzimu</p> <p>d. Gutegura ibikenerwa nk'ibyo kurya, gucumbikira amatsinda y'abatabazi, abagenzuzi ba Mine cyangwa Abapolisi, iyo ari ngombwa</p> <p>e. Gutegura uburyo bwo gutwara abakomeretse bava ahabere impanuka bajyanwa kwa muganga</p>
<p>16.6.3</p>	<p>Kurwanya inkongi z'umuriro</p>	<p>Incamake y'ibyiciro byo kugenzura no kuzimya umuriro</p> <ol style="list-style-type: none"> a. Kumenya inkomoko y'umuriro nicyawuteye no kugukuraho hakoreshejwe ubuhanga: urugero amavuta, umwuka cyangwa ubushyuhu b. Haheruka kuzimya umuriro n'ibishashi byasigaye n'ibyahiyeye hakoreshejwe umucanga, amazi na kizimyamyoto c. Nyuma y'ikibatsi cy'umuriro, gushyira uburyo bwo gukurikirana no gucunga, bikorwa n'umuntu ubifitiye ububasha nibura mu masaha 48

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		<p>d. Uburyo bwo gushyiramo umwuka bugomba gusuzumwa mu gihe cyo gushyiraho isaha yo gusubira mu gace kangijwe n'umuriro, bikemezwa n'Umuyobozi wa Mine cyangwa Tekinisiye cyangwa umugenzuzi wa mine</p> <p>e. Gusubiza amashanyarazi ahangiritse bigomba kugenzurwa no gukurikiranwa n'Umuyobozi wa mine ubifitiye ububasha</p>
<p>16.6.4</p>	<p>Gukumira inkongi y'umuriro</p>	<p>a. Kugenzura no gusukura imyanda y'ibyahije</p> <p>b. Kumenya aho ibyuma bizimya umuriro biri muri mine kandi bigashobaro kugerwaho byoroshye</p> <p>c. Kuzimya umuriro muto hakoreshejwe guhuha, umucanga, amazi cyangwa kizimyamwoto</p> <p>d. Gufata ingamba zo kurinda iyangirika ry'insinga z'amashanyarazi, ryaba riturutse k'ubugome, ku burangare mu gutwara ibikoresho biremereye cyangwa se biturutse ku ituritsa ry'intambi</p> <p>e. Nta kurunda ibisigazwa bishobora kwaka iruhande rw'ibikoresho bishobora nabyo kwaka</p>
<p>16.7</p>	<p>Ibipimo ngenderwaho mu gukura amazi muri mine</p>	<p>a. Uburyo n'ibikoresho byagenwe kurinda ko mine irengerwa n'amazi bigomba gusuzumwa kugira ngo hamenyekane ko bikora neza bigomba no guhindurwa iyo ari ngombwa</p> <p>b. Kugenzura ko uburyo bwo gukura amazi muri mine mu gihe cyo kuyubaka cyangwa cy'ubucukuzi. Amazi ashobora kuva</p> <p style="padding-left: 20px;">i. Hejuru bitewe n'imvura</p> <p style="padding-left: 20px;">ii. Kuva mu masoko yo hasi muri mine</p> <p style="padding-left: 20px;">iii. Amazi aturuka ku miterere y'amabuye</p> <p>c. Imyobo yo gusohora amazi (mito cyangwa miremire) igomba gucukurwa mu ndiri y'amazi muri mine ahantu hatandukanye kugira ngo imirimo izashobore gukorwa mu butaka butarimo amazi yirundanyije kandi ashobora guteza ibyago, ibyondo cyangwa gazi</p> <p>d. Inzira itandukanye n'inyurwamo hinjirwa muri mine igomba kuba iteganyijwe kugira ngo ikoreshewe igihe habaye umwuzure muri mine</p>

17.0 UMUTEKANO NO KUGENZURA KWINJIRA

	AMABWIRIZA	IBIGOMBA GUKORWA
17.1	Kugenzura umutekano w'abasura n'abakorera muri mine	a. Abasura mine bose bagomba buri gihe kwimenyekanisha ku bashinzwe umutekano bakigera kuri mine na mbere yo kwijyiramo. b. Imodoka zabugenewe nizo zigera muri mine. c. Abantu bose bagomba kuguma ahanditse ko bitemewe kwinjira kugeza igihe baboneye uruhushya d. Igenzura ry'ibisindisha cyangwa ibiyobyabwenge rikorerwa abasura cyangwa abakozi ba mine mbere yuko akazi gatangira.
17.2	Ibimenyetso bigomba gukurikizwa	a. Ibimenyetso bigomba gushyirwa ahantu hagaragara muri mine kandi bigomba kubahirizwa buri gihe n'abahakora ndetse n'abahasura
		

AMABWIRIZA Y'UMUTEKANO MURI MINE

17.3	<p>Ibimenyetso bibuza ibisindisha n'ibiyoby-abwenge muri mine</p>	
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18.0 GUTUNGANYA AMABUYE Y'AGACIRO

	AMABWIRIZA	IBIGOMBA GUKORWA
18.0	<p>Gutunganya amabuye y'agaciro bigira ingaruka ku mutekano no ku bidukikije</p>	<p>a. Imirimo yo gutunganya amabuye igomba gukorwa mu buryo bugabanya ingaruka ku bidukikije</p> <p>b. Gukoresha no kumena ibiva muri mine byanduye birabujijwe</p> <p>c. Kohereza imyuka mu kirere bigomba gucungwa n'ukora imirimo y'ubucukuzi ku buryo ingaruka zabyo ku bakozi no kubahaturiyeye zigabanuka</p> <p>d. Abakozi bagomba kugira ubwishingizi bw'ubuzima ku kazi</p>
18.1	<p>Gukoresha amazi neza no kumena ayakoreshejwe</p>	<p>a. Imirimo y'ubucukuzi igomba gukoresha amazi neza hirindwa kuyasesagura</p> <p>b. Imirimo y'ubucukuzi igomba gukoresha amazi ku buryo bufunze akayungururwa akongera gukoreshwa mu mirimo</p> <p>c. Gutunganya amazi bivuze kuyakuramo ibishobora gutera indwara mbere yo kuyasuka mu migezi cyangwa kongera kuyakoresha bigomba gukorwa</p> <p>d. Ibisimu bifata amazi bikurikije ibipimo ngenderwaho bituma hataba gucengera cyangwa kuzura kw'amazi, bigomba kubakwa</p> <p>e. Igenzura ry'ubwiza bw'amazi ahari n'asohoka rigomba gukorwa</p>

AMABWIRIZA Y'UMUTEKANO MURI MINE

<p>18.4</p>	<p>Uburyo buciriritse bwo kuyungurura amabuye</p>	<p>a. Ukora ubucukuzi agomba gushyira gahunda yo gusimbuza uburyo bwo kuyungurura ku butaka uburyo bugezweho mu rwego rwo kugabanya ibitakara no kurengera ibidukikije.</p> <p>b. Gukoresha ibinyabutabire mu gihe cyo gutandukanya no gushyira mu byiciro amabuye birabujije</p> <p>c. Igihe uburyo bwo kuyungurira ku butaka bukoreshajwe, ucukura agomba gufata ingamba zo kurinda ibidukikije zikurikira zihari:</p> <ul style="list-style-type: none"> i. gufata amazi, ii. kurinda isuri iii. kurinda kwanduza iv. kujugunya ibibuye hirya no hino waste products v. gukuraho imyanda ikomeye <p>d. Ucukura mine agomba gukurikirana ko abantu bakora mu mirimo yo kuyungurura bafite ibikoresho bya ngombwa bibarindira umutekano</p> <p>e. Ibisigazwa biva mu gutunganya amabuye bigomba kubikwa ahabugenewe kandi hakubakwa uruzitiro rwo kubirinda</p>
<p>18.5</p>	<p>Uburyo bwo gutunganya amabuye ku buryo bw'inganda urugero kumena no gusya amabuye, injeje</p>	<p>a. Uburyo bwo gutunganya amabuye hakoreshejwe imashini bugomba kuba bugamije kongera imikorere, umusaruro, umutekano no kurengera ibidukikije.</p> <p>b. Kongerera agaciro bikoze n'imashini bivuga gushyiraho tekinike zo gutunganya amabuye uyamena, uyashya, ukoresha injeje, ameza anyegagega n'icyuma gitandukanya amabuye gikoreshaje rukuruzi</p> <p>c. Ucukura amabuye agomba gushyiraho uburyo bwo gukoresha imashini ashingiye ku bitabo bisobanura uko zikoreshwa nk'uko byanditswe n'uwazikoze</p> <p>d. Uburyo bwo gukora bugomba kubamo ugukoresha n'ugukora kwizewe by'imashini zitunganya amabuye, uko zikora, ingamba z'umutekano ahakorerwa imirimo y'ubucukuzi, kwita ku bikoresho, ibifung by'umutekano, kumena ibyago bishobora kuba ndetse</p>

19.0 IMIRYANGO ITURIYE AHAKORERWA IMIRIMO Y'UBUCUKUZI

	AMABWIRIZA	IBIGOMBA GUKORWA
19.1	Imibanire n'abatariye ibirombe	<p>a. Mbere yo gutangira imirimo y'ubucukuzi ubukora agomba kubanza kumvikana n'abahafite amasambu akorerwamo n'abahagarariye abahatariye</p> <p>b. Ukora imirimo y'ubucukuzi agomba kumenya ishingano ze zo gukora no kubana neza n'abatariye aho akorera</p> <p>c. Ukora imirimo y'ubucukuzi agomba gukora gahunda y'ibikorwa bigamije guteza imbere aho akorera irimo ibyerekeye n'imibanire n'abayituriye</p>
19.2	Kurinda abatariye mine ibishobara kugira ingaruka ku buzima bwabo	<p>a. Ukora imirimo y'ubucukuzi agomba gufata ingamba zirinda ubuzima bw'abatariye mine.</p> <p>b. Abatariye mine bagomba kurindwa ingaruka mbi z'umukungugu, uguhumana kw'amazi, isuri n'urusaku biterwa n'ubucukuzi</p> <p>c. Ukora ubucukuzi agomba gushyiraho uburyo buhoraho bwo gufata ibipimo no kubipima</p>
19.3	Gushyiraho uburyo bwo kurinda umutekano ahakorerwa ubucukuzi	<p>a. Ukora ubucukuzi agomba gukora ku buryo ahakorerwa ubucukuzi haba umutekano ku buryo bwo gukumira abantu binjiramo</p> <p>b. Ibimenyetso bikumira bigomba gushyirwaho kugira ngo biburire abantu</p> <p>c. Imodoka n'ibikoresho bigomba gukoreshwa mu buryo bidateza ibibazo abatariye mine</p> <p>d. Ahakorerwa ubucukuzi ari ahari imyobo n'indake hafunze kandi hadakoreshwa kubera impamvu iyo ariyo yose hagomba kuba harinzwe kandi hari uruzitiro hananditse mu nyuguti zigagara ngo "MWIRINDE IMPANUKA, BIRABUJIJWE KWINJIRA HANO"</p> <p>e. Niba ahacukuwe umuntu ashobora kugwamo, ibitaka byacukuwe bikoreshwa mu gushyiraho imbibi zahacukuwe</p>

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19.4	<p>Ukora ubucukuzi agomba kurinda ahitse n'ahatobotse</p>	<p>a. Iyo imirimo y'ubucukuzi yatumye haba cyangwa hashobora kuba ugucika ku butaka, kwika cyangwa gutoboka hejuru kw'ahakorerwa, aho hantu hose hagomba gushyirwa uruzitiro n'ibimenyetso byabugenewe bimenyeshya abantu ko hashobora kwika</p> <p>b. Ukora ubucukuzi afata ingamba za ngombwa kugira ngo hashyirweho inkingi zo kurinda ibiri hejuru y'ubutaka n'inyubako ziri hejuru ya mine</p> <p>c. Ubucukuzi bukorerwa kure yaho abantu batuye kugira ngo hirindwe ugusenya ibintu n'ubuzima kubera gutoboka no kwika</p>
18.5	<p>Uguhungabana biturutse ku rusaku</p>	<p>a. Amasosiyeti akora imirimo ifatika y'ubucukuzi nko guturitsa intambi no gukoresha imashini nini agomba gushyiraho ingamba zo kugabanya urusaku mu baturage mu buryo bukurikira:</p> <p>i. Kumenyekanisha gahunda yo guturitsa intambi amasaha atanu (5) mbere yuko biba</p> <p>ii. Kugeza gahunda yo guturitsa intambi ahantu hose ishobora kugera</p> <p>iii. Kumanika gahunda yo guturitsa mu bice bishobora kugerwaho</p> <p>iv. Kumenyeshya abaturage ibyahindutse mu mirimo bishobora kubagiraho ingaruka nibura amasaha atanu (5) mbere</p>
18.6	<p>Intera yemewe mu mirimo y'ubucukuzi ishobora gutuma haba gutana ku butaka</p>	<p>a. Ntihagomba kubaho ubucukuzi bushobora gutuma ubutaka butana, bwika cyangwa hacika umwobo ku butaka mu ntera ya metero 50 z'inzu, umuhanda, inzira ya gari ya moshi, ikiyaga, umugezi, ahabikwa ibisigazwa cyangwa ikindi kintu gishobora kwangirika</p> <p>b. Birabujijwe kubaka inzu, umuhanda cyangwa inzira ya gari ya moshi ahatari metero 50 uturutse ahakorerwa imirimo y'ubucukuzi</p>

20.0 MURI RUSANGE

	AMABWIRIZA	IBIGOMBA GUKORWA
20.1	Ibisabwa mu bishushanyo bwa mine	<p>a. Buri hantu hakorerwa ubucukuzi hagomba gukorerwa igishushanyo kikabikwa ku biro by'ahongaho kugirango gifashe mu ubutabazi bwihuse kandi gifashe mu kurinda ibikomere n'ibindi biza bishobora kuba mu gihe cy'imirimo</p> <p>b. Igishyushanyo cyo hejuru kigomba kugaragaza imbibi, aho inzu ziri, uburyo bwo kuyungurura, imihanda ihagera n'iri muri mine,, imiterere kamere y'ahantu naho guhurira habaye impanuka</p> <p>c. Aho mine iri, indake, aho kwinjiriza ibiti, imiyoboro y'amashyanyarazi n'iya amazi, atwara umwuka bigomba kujya ku gishushanyo</p> <p>d. Ibishushanyo bwa mine bigomba kugaragazwa na numero n'italiki byakoreweho n'itariki bigomba busuzumirwaho kandi buri gishushanyo gishyirwaho umukono n'umuntu ubifitiye ububasha</p> <p>e. Igishushanyo kigomba kugaragaza aho indake ziri harimo ahaca umwuka, ahakorewe imirimo kera, imiterere ya jewoloji, imyobo yatobowe n'ibindi iyo ari ngombwa.</p>
20.2	Politike n'uburyo bwo gukora	<p>a. Buri mine ikora igomba gushyiraho politiki y'umutekano w'isuku no ku bidukikije</p> <p>b. Abakozi bagomba gutozwa kuri Politiki yavuzwe yerekeye ubuzima ku kazi n'ibidukikije</p> <p>c. Urwego rushinzwe ubucukuzi rushobora gusaba izindi politiki zirebana n'ubuzima, umutekano n'ibipimo ngenderwaho, hagamijwe guteza imbere imikorere myiza mu bucukuzi</p>
20.3	Inyigo y'ingaruka ku bidukikije	<p>a. Itegeko risaba kubanza gukora inyigo y'ingaruka ku bidukikije mbere yo gutangira imirimo y'ubucukuzi</p> <p>b. Ukora ubucukuzi ashya mu bikorwa inyigo yo gucunga ibidukikije ishingiyeye ku nyigo y'ingaruka ku bidukikije.</p>

IMIGEREKA

UMUGEREKA WA MBERE: IBIKORESHO BY'UBUTABAZI BW'IBANZE

1. Ibikoresho bikurikira bigomba kuba biri mu dusanduku tw'ubuvuzi bw'ibanze bufite ikigero cya 63,5 kuri 38 cm n'ubugari bwa 12,58cm n'ubuhagarike bwa 12.5cm kandi ibi bikurikira by'ibanze bigomba kuba bihari:

Bande

Bande munani bihujwe n'ibyuma.

Bande ebyiri zikoze mu buryo bwa mpande eshatu ku bakometse mu nkokora, ku kaboko, mu kiganza, Two rectangular splints for injuries to elbow, forearm, wrist and hand (Bingana na e 500mm X 230mm X 75mm)

Ibyo gukoresho ku mu biri

Garo zikoze muri kawucu, imwe ikoreshwa mu gice cyo harugu indi ikoreshwa mu gice cyo hasi.

Garo ebyiri zifite 150mm kuri 230mm

Ibipfuko

Ibipfuko 18 bikoze ku buryo bwa mpande eshatu

Amapaki 12 y'udupfuko dufite isuku "finger dressing".

Amasashi 12 afite isuku y'ikigero kiringaniye.

Amapaki ane manini y'ibipfuko bifite isuku "shell dressing".

Buri sashe y'ibiphuko yavuzwe haruguru igomba kuba itamenwa n'amazi kandi iriho ipamba rya 500g.

Paki za 250g zikoze mu ipamba

Ishinge 12 zihunitse.

Paki enye za 30g z'umweru.

Buri cupa rya 60 ml rigomba kuba riraho ikimenyetso ko "bitanyobwa ko kandi ari uburozi kandi bikoreshwa inyuma gusa".

Umuti wo mu maso wa 30ml ufite isuku.

Imakasi ntoya

Ibikoresho byavuzwe haruguru bigomba kuba biri mu gasanduku k'icyuma gafite aho bafata hakoze mu ruhu.

UMUGEREKA WA KABIRI: IBYUMA BIRINDA N'IBIZIMYA UMURIRO

1. Ibyuma bizimya umuriro byabugenewe ni ibyuma biri hamwe bishobora kuzimya umuriro uwo ariwo wose iyo bidashobotse cyangwa bishobora guhenda, gutegura ibishobora gutanga amazi, ibizimya umuriro, konteneri zirimo umucanga, cyangwa ivumbi ryabugenewe, bishyirwa ahantu hazwi kandi bikaba bishobora guhanganana n'umuriro ushobora kuhaboneka

2. Ku byavuzwe haruguru mu gika cya mbere, "gutanga amazi ku buryo buhagije" bivuga amazi ahagije afite ingufu za 3,5 angana na litiro 270 mu munota iyo asohotse inshuro imwe.

3. Muri uyu mugereka, inkongi ziri mu bice bikurikira:

Icyiciro "A"

Muri iki gice harimo inkongi zituruka ku bintu bikomeye bituruka ku bimera (birimo karuboni) byaka bigatanga amakara. Amazi ateye cyangwa yuhiye ashobora bukoreshwa mu kuzimya umuriro, agakoreshwa n'umuntu ushyirwaho n'ubuyobozi mu nyandiko

Icyiro "B"

Muri iki cyiciro harimo imiriro irimo ibisukika cyangwa ibikomeye bisukika. Kugira ngo bishobore kuzimika bigabanywamo ibice bibiri

- (i) Ibishobora kuvangwa n'amazi
- (ii) Ibidashobora kuvangwa n'amazi

Iyo umuriro uri muri B

- (i) ibizimya harimo amazi atewe, ibisukika bipuriye
- (ii) ibizimya ni ibisukika bipuriye, diyogiside ya karuboni n'ifu y'ubutabire cyangwa ibindi byemewe mu nyandiko n'ubuyobozi bwa GMD.

Icyiciro "C"

Iki cyiciro kigizwe n'umuriro ukomoka kuri gazi cyangwa gazi zahinduwe nk'ibisukika, izo gazi zigizwe na gazi metane,

gaz propane na gazi butane. Urufuro cyangwa ifu y'ubutabire bishobora gukoreshwa mu kugenzura umuriro. Amazi bapuriza ashobora gukoreshwa gusa mu guhoza ibikoresho byakoreshejwe.

Icyiciro "D"

Ni umuriro ukomoka ku byuma. Ibizimya bikoresheje amazi ntacyo bikoraho ahubwo bishobora gutera ibiazo ; diogiside ya karuboni n'icyiciro cy'amafu ya karubonate nayo ashobora gutera ingorane mu kuzimya umuriro ukomoka ku byuma. Ifu ya garafite, iya talki, karubonate ya sodiyumu, igifonyi n'umucanga ni ibikoresho bikwiye mu kuzimya umuriro wo mu cyiciro cya « D ». Amafu y'umwihariko akomoka ku mishongi ashobora nayo gukoreshwa muri iki cyiciro by'umwihariko mu muriro w'ibyuma birimo iraniyumu.

"A", "B" cyangwa "D". Uburyo bwo gukoresha muri iki gihe ni ugutanduka amashyanyarazi no gukoresha uburyo bwo kuzimya zijyanye nibiri kwaka. Iyo ibi byananiranye niho hashobora gukoreshwa ibindi bizimya bidasanzwe bidahitisha amashyanyarazi kandi bitangiza ibikoresho. Ibikoreshwa ni ibisukika bipurije, ifu zumye, diyozide ya karuboni cyangwa ibindi byemewe n'Umuyobozi mu nyandiko, niyo ibikorwa bwo gukonjesha bishobora kugira ingaruka ku bikoresho bwa erekitoronike.

4. Kizimyamwoto

(1) Kizimyamwoto zabugenewe: kizimyamwoto zakozwe kugira ngo zikoreshwe mu kuzimya umuriro ugitangira ntacyo zimara iyo umuriro wakomeye. Kizimyamwoto ziratanganywe kandi buri yose ikoresheya ku muriro uyu n'uyu. Ni byiza gukoresha kizimyamwoto hitawe ku bwoko bw'umuriro nk'uko yashyizwe mu byiciro mu rwego mpuzamahanga yavuzwe haruguru

(2) Umuntu ubifitiye ububasha: umuntu wabyize kandi ufite uburambe mu kurwanya inkongi z'umuriro, niwe ugomba kugena kizimyamwoto zo gushyira ahantu habugenewe hashingiye ku mabwiriza abigenga

(3) Kizimyamwoto zigomba kuba zifashwe neza kugira ngo zishobora gukoreshwa ako kanya

UMUGEREKA WA 3 : GUPIMA UBUSHOBOZI

- a) Imikandara
- b) icyemezo cyo guturitsa
- c) icyemezo cy'ububasha bw'Umuyobozi
- d) Kwemeza ingofero z'umutekano
- e) Ibiterura
- f) Ibimena urutare
- g) Imodoka zitwarwa muri mine y'ikuzimu

UMUGEREKA WA 4: INGERO NTAREGWA ZEMEWE KU BYUKA BIMWE NA BIMWE

Igice cya mbere	Igice ya kabiri 2
Imiterere ya gazi	Ikigero ntaregwa cya gazi muri ppm
1. Diyogiside ya karuboni	7 500
2. Karuboni monozide	100
3. "Nitrous fumes"	10
4. "Sulphur dioxide"	20
5. " Hydrogen sulphide"	20

**UMUGEREKA WA 5: IGITABO CYANDIKWAMO
IBYAKOZWE**

UMUGEREKA WA 6: RAPORO IBANZA Y'IMPANUKA

Impamvu:

Italiki impanuka
yabereye:/...../.....

Mine:

Isaha impanuka
yabereyehoH.....

Umuyobozi

1. Kuvuga uko impanuka yabaye (gushyiraho amafoto niba bishoboka) :

2. Impamvu zagaragaye ku ikubitiro:

3. Amasomo byatanze:

4. Ibikorwa bwo gukosora:

**UMUGEREKA WA 7 : INYANDIKO YA RAPORO
Y'IMPANUKA**

INYANDIKO IKORERWAHO RAPORO Y'IMPANUKA

Iyi nyandiko ikoreshwa mu kumenyekanisha impanuka kubyerekeye amategeko n'ibyago byabaye

IGICE CYA A: UMWIRONDORO W'UMUKORESHA

1. IZINA RYUKORA UBUCUKUZI:

2. IZINA RYAHAKORERWA UBUCUKUZI:

3. AKARERE:

4. AMABUYE ACUKURWA

IGICE CYA B: IMPANUKA CYANGWA IBYAGO MU BURYO BURAMBUYE

1. Impanuka yabaye cyangwa umubare wazo
2. Umubare w'abantu bapfuye
3. Umubare w'abamugaye burundu
4. Umubare w'abakomeretse
5. Itariki impanuka yabereyeho cyangwa ibyago/...../.....
6. Isaha impanuka yabereyeho cyangwa ibyagoH.....
7. Aho impanuka yabereye cyangwa ibyago
8. Izina ryahakorerwaga
9. Uburebure munsu yo hejuru (muri metero)
10. Kuvuga ibyerekeye impanuka cyangwa ibyago mu magambo
.....
11. Ese impanuka yabaye masaha y'akazi cyangwa mu gihe cy'inyongera?
12. Ese impanuka cyangwa ibyabaye byabereye ahasanzwe hakorerwa?
Yego Oya

IGICE CYA C: ABAYOBOZI

Amazina:

Ikarita imuranga :

Icyakora:

Umukono:

Italiki:/...../.....

**IGICE CYA 2: IGICE GIKORESHWA N'ISHAMI RISHINZWE
AMATEGEKO N'UBUGENZUZI**

1. UMUBARE W'IMPANUKA CYANGWA UKWISUBIRA:
2. ITALIKI ZAMENYEKANIRISHIJWEHO/...../.....
3. UBWOKO BW'IMPANUKA CYANGWA
UKWISUBIRA KWA BWO
4. ICYABA CYATEYE IMPANUKA CYANGWA IBYAGO
.....
.....
5. ICYO UMUGENZUZI ABONA KITUBAHIRIJWE
6. NIBA ARI YEGO, ITEGEKO, AMABWIRIZA ATAKURIKIJWE
.....
.....
7. IKIGOMBA GUKORWA
8. ITALIKI INYANDIKO YUZURIJWEHIO/...../.....
IZINA RY'UMUGENZUZI (MU NYUGUTI NKURU):
.....
TALIKI:/...../..... UMUKONO:
10. UMUGENZUZI WA MINE:
11. UMUYOBOZI W' ISHAMI RISHINZWE AMATEGEKO
N'UBUGENZUZI
12. ESE HARI IKURIKIRANA MU RWEGO RW'IBYAHA
RITEGANYIJWE? YEGO OYA

UMUGEREKA WA 8: GUPIMA IBISHOBORA KUBA UKO UBUGENZUZI BUKURIKIRANA

Gukuraho	Ururyo nyabwo bufatika bwo gusuzuma ibyago ni ukubikura. Igihe ibishobora gutera icyago byavuyeho, nta ngaruka bishobora kugira
Guhindura	Ibi bisaba guhindura ugukora guteza impanuka cyangwa icyareshwaga n'ikindi kitayiteza
Gutandukanya	Gutanduka cyangwa gushyira kuru y'abantu
Inyubako	Gushyiraho cyangwa gusimbura inyubako kugira ngo ukureho cyangwa ugabanye ibishobora gutera impanuka
Ubuyobozi	<p>Ibyemezo bw'ubuyozozi birimo guhindura ibishobora guteza impanuka. Harimo kugabanya umubare w'abakozi bashora guhura n'ibyago no gukora ku buryo abahaguma bamenya icyago n'uburyo bwo kukirinda</p> <p>Ibyemezo bw'ubuyobozi birimo gushyira ibyapa byerekana impanuka zishobora kuba no gushyiraho uburyo bwanditse bwo gukora, urugero nko gukorera ahantu hafunganye no gushyiraho uburyo bwo gufunga</p>
Ibikoresho birinda umutekano w'abakozi	Gutanga ibikoresho birinda umuntu bikorwa iyo gusa ubundi buryo bwo kugenzura bidashobotse. Bitanga uburyo bwo kongera ubugenzuzi kandi bitanga ubwirinzi iyo bikoreshajwe hamwe n'ubundi buryo mu bwavuzwe haruguru.