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NATIONAL DEPARTMENT OF PUBLIC WORKS

SAFETY AND SWITCHING PROCEDURES

FOR

ELECTRICAL INSTALLATIONS

JANUARY 2003

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1 REGULATIONS AND DEFINITION OF COMPETENT PERSON:

1.1 REGULATIONS:

All persons who carry out or arrange for work of any description for the Department in connection with electrical apparatus shall make themselves acquainted with the Occupational Health and Safety Act (Act 85 1993) with particular reference to the Electrical Machinery Regulations, Regulations 1 to 23 inclusive.

Access to the above Act and its Regulations can be arranged with the Regional Manager.

1.2 DEFINITION OF COMPETENT PERSON:

"competent person" in relation to machinery, means any person who—

(a) has served an apprenticeship in an engineering trade which included the operation and maintenance of machinery, or has had at least five years' practical experience in the operation and maintenance of machinery, and who during or subsequent to such apprenticeship or period of practical experience, as the case may be, has had not less than one year's experience in the operation and maintenance appropriate to the class of machinery he is required to supervise;

(b) has obtained an engineering diploma in either the mechanical or electrotechnical (heavy current) fields with an academic qualification of at least T3 or N5, or of an equivalent level, and who subsequent to achieving such qualification has had not less than two years' practical experience in the operation and maintenance appropriate to the class of machinery he is required to supervise;

(c) is a graduate engineer and has had not less than two years' post-graduate practical experience in the operation and maintenance appropriate to the class of machinery he is required to supervise and who has passed the examination on the Act and the regulations made there-under, held by the Commission of Examiners in terms of regulations E5 (2) of the regulations published under Government Notice R.929 of 28 June 1963; or

(d) is a certificated engineer;

2 SAFETY EQUIPMENT

The following equipment required for working on electrical installations and distribution systems, must be maintained in good order and repair and must be made available:-

Safety belt, overalls, hard hat, safety shoes or boots, rubber gloves, "Men Working" notice boards, locks for locking off switches, buss bar shutters in truck-type switchgear, isolators or earthing links, rubber sheet and length of rope with short circuiting earthing-chains, earthing sticks and testing/phasing sticks rated for the voltage of the equipment to be tested.

Under no circumstances shall work be carried out on electrical apparatus unless the proper safety equipment is used

With regard to overhead linesmen, no work shall be carried out unless use is made of a non-metallic ladder and the appropriate safety belt, rubber gloves, overalls, hardhat and safety shoes or boots are worn. The buddy system must also be implemented.

3 DEFINITION OF OPERATING TERMS

3.1 Alive or live

This means electrically connected to the power system and/or electrically charged.

Consider an isolated overhead line that is not earthed. An overhead line can be electrically connected to the system in the following ways:

(a) By means of a metallic conductor such as links and breakers or switches. This is the normal way of transmitting electrical energy.

(b) Electromagnetic induction or transformer action from a nearby current carrying line will induce a dangerous voltage in the isolated lines and are a hazard to all personnel that must work on or with the line.

(c) Electrostatic induction or condenser action from a nearby live line will induce a dangerous voltage in any isolated, but not earthed, overhead line. Electrically charged means at a potential difference or voltage above zero

3.2 Dead

This means that any apparatus so described is isolated from the power system. Rotating plant shall not be regarded as dead until it is stationary or is being slowly rotated by means of barring gear and is not excited.

The Occupational Health and Safety Act defines dead as: "dead" means at or about zero potential and isolated from any live system. Disconnected has the same meaning as isolated. An overhead line disconnected from all sources of supply but not earthed, cannot be regarded as dead because:

(a) It can retain a static charge.

(b) It can acquire a static charge due to atmospheric conditions.

(c) It can accidentally be made alive.

(d) Nearby lines continually induce voltage in them.

The regulations recognise only the following devices as disconnects or isolators:-

(a) Links.
(b) Fuses.
(c) Truck type switchgear.

3.3 Earthing

This means the connecting of apparatus electrically to the general mass of earth in such a manner as will ensure at all times an immediate safe discharge of electrical energy. This is done through an earth bar or spike by means of a good metallic conductor.

To fully appreciate this definition we must refer to the Electrical Machinery Regulations, Regulation 3 of the Occupational Health and Safety Act which states:

"Work on Disconnected Electrical Machinery. —Without derogating from any specific duty imposed on employers or users of machinery by the Act, the employer or user shall, whenever work is to be carried out on any electrical machinery which has been disconnected from all sources of electrical energy but which is liable to acquire or to retain an electrical charge, as far as is practicable, cause precautions to be taken by earthing or other means to discharge the electrical energy to earth from such electrical machinery or any adjacent electrical machinery if there is danger if there is danger therefrom before it is handled and to prevent any electrical machinery from being charged or made live while persons are working thereon."

Electrical apparatus and in particular overhead lines may become charged due to:-

(a) Direct lightning strokes.

(b) Electro magnetically induced currents due to a lightning stroke in the immediate vicinity of the line.

(c) Electro statically induced charges on the lines due to the presence of thunderclouds.

(d) Electrostatic charges imparted to the line by the friction of dust or snow blowing past the conductors.

(e) Electrostatic charges imparted to the line due to changes in line altitude"

These changes are responsible for tremendously high voltages between overhead lines and earth, in fact, sometimes high enough to cause a flash over on insulators. A spark may span several centimetres of air to a person's hand should he approach too closely to an isolated unearthed overhead line.

An overhead line or apparatus can be made alive by:

(a) Unauthorised operating, i.e., closing the wrong links and breaker.

(b) Faulty wiring on consumer's stand-by sets. (Back feed from consumer)

(c) A broken overhead conductor from a different line falling onto the isolated line.

(d) Synchronising plugs.

From the foregoing paragraphs it is clear that the purpose of earthing isolated lines and apparatus are:

(a) To discharge them should there be a residual voltage or charge.

(b) To prevent them acquiring a static charge.

(c) To prevent danger to persons working on apparatus in the event of someone accidentally making it alive.

(d) To dissipate induced voltages continuously and safely.

Earthing gear means the fixed or portable appliances used for earthing electrical apparatus. The dangers from inadequate or improper earth connections are:

(a) Electrocution.
(b) Burns from arcing.
(c) Electric shock leading to falls.

Earthing may be done by the closing of earthing links, or by the attaching of fixed earthing devices or by the affixing of portable earthing straps. In each case the main idea is to ensure the safety of personnel.

In affixing portable earth straps, the connection to the earthbar or earthed metal or spike must be made first and in removing such earthing straps, the disconnecting from the earthbar or earthed metal or spike must be done last. Also, a link stick or an insulated stick should be used to connect the earth wires to the overhead lines or apparatus.

These requirements are most important because connecting the portable strap first to earth and then to the conductors by means of a link stick avoids the risk of a shock to the operator from static charges or induced voltages.

REMEMBER: Always safety test before applying earths.

3.4 Isolate

This means to disconnect from all Sources of electrical potential by means of opening of links or fuses or the withdrawal of truck-type circuit-breakers.

All sources of electrical potential mean all points or circuits from where the apparatus can be made alive. Links, fuses and truck-type switchgear can be regarded as isolators because:

(a) They leave a visible air gap in a circuit when open, removed or withdrawn.
(b) They contain no stored energy and will not close due to defects.
(c) They can be locked in a physical condition and thus can only be operated by the person with the correct key.

Opening links and locking them in the open position; removing fuses and locking them away; withdrawing truck-type switchgear and locking the buss bar shutters are the only safe methods of isolating.

3.5 Circuit Breaker

This is a device designed to make or break electric current under normal and fault conditions. A breaker can make or break an electric current because it is designed to extinguish the arc very rapidly and effectively. It is also designed to withstand the tremendous forces under short circuit conditions. The arc-extinguishing medium for high-voltage breakers is normally air, oil or vacuum and should this medium be lost, the breaker becomes a link. Never use a breaker without an arc-extinguishing medium to interrupt current flow because the breaker will probably explode or it will sustain severe damage.

A fault condition is any condition that will cause an excessive amount of current flow. The normal fault conditions are:

(a) Phase faults.
(b) Earth faults.
(c) Open circuit in one line of a three-phase system (Single-phasing).
(d) Too low a voltage. (Motors will draw a large current or even stall).
(e) Too high a voltage.
(f) Overloading.

For the following reasons breakers cannot be regarded as isolators:

(a) They leave no visible gap in a circuit.
(b) They contain stored energy and can close on their own due to various defects.
(c) It is normally not possible to lock them in an open position.
(d) Oil circuit-breakers are subjected to carbon tracking which could cause a flash-over between contacts.

3.6 Link

This is a device for making or breaking a circuit when no load current is flowing.
Links differ from breakers and switches in the following respects:

(a) They are not equipped with an arc extinguishing medium/device.
(b) Their movement is very slow.

Should current be interrupted by means of links, an uncontrollable arc will be struck at the points where the contacts part.

The temperature of the arc is so high (+ 2 000°C) that it will simply melt the parting contacts. As the contacts move further apart, the arc will lengthen and burn everything away. Molten metal could splash onto the operator and cause severe injuries.

As the arc lengthens, considerable noise is generated and the light intensity is so severe that the operator could suffer from "welding flash" of the eyes.

When apparatus equipped with earthing links is required to be earthed at more than one place, the earthing links shall always be closed first and thereafter, any necessary portable earthing gear may be affixed to the apparatus.

In removing the earths in readiness for making the apparatus alive, all portable earthing gear shall first be removed and earthing links shall be opened last.

Closing the earthing links first ensures maximum safety to the operator. These links are easily operated, make good contact and the operating handles are at a safe distance from the contact points.

Locks and keys shall also be provided for links. The operating mechanism of all manually operated links shall be fitted with fastenings for locks. The operating mechanisms of each set of manually operated links shall normally be locked whether the links are in the open or in the closed position.

The locking of links provides a safeguard against their being opened or closed in error by other persons apart from the one with the correct key and a written instruction to operate.

3.7 Operating methods

This means switching, linking, safety testing and earthing. This definition also indicates the order of operating when making apparatus safe to work on.

(a) Switching -

(i) Open breaker or switch to interrupt current flow safely, i.e. prevent arcs.
(ii) Close breaker or switch to start current flow - the only safe way.

(b) Linking - open at least one set of links from where the apparatus can be made alive and lock the links in the open position. Always ensure that you are not going to start or interrupt current flow with the links by ensuring that the breaker or switch is open.

(c) Safety test - test all three phases to ensure that the apparatus is disconnected from all sources of supply and that there is no back-feed from a consumer's standby set or other source.

(d) Apply earths - ensure safety of the workers by:-

(i) Discharging the line or apparatus.
(ii) Preventing the line from acquiring a static charge.
(iii) Preventing the line or apparatus from being accidentally made alive.

Before applying portable earths, ensure that they are mechanically and electrically in good condition. There should be no broken strands, the clamps should be rigid and without defect and when applied properly, should make intimate contact with the conductors and earthbar or spike. The earthing cable tails should be as short as possible. The current carrying capacity of the portable earth is greatly reduced by broken strands. It will act as a fuse and increase the danger to workmen.

4 GENERAL SAFETY PRECAUTIONS

No person shall carry out work of any description (including maintenance, repairs, cleaning and testing) on any part of electrical apparatus unless such parts of the apparatus are:

(a) dead;

(b) disconnected, isolated and all practicable steps taken to lock off from live conductors;

(c) efficiently connected to earth with the appropriate earthing sticks or gear designed for this purpose at all points of disconnection of supply;

(d) screened where necessary to prevent danger, and caution and danger notices fixed;

and unless such person is fully conversant with the nature and extent of the work to be done.

It is the duty of the competent person in charge of the work to ensure that the foregoing provisions are complied with. He shall also ensure that when the work has been completed, the apparatus is safe to be made alive and that all earths and temporary danger notices have been removed.

Provided that cleaning and painting of earthed metal enclosures, connections or disconnections of circuits to or from live systems may be carried out in accordance with instructions issued by the competent person concerned.

Provided also that where the design of the apparatus precludes the strict compliance with all details of these precautions, the work shall be carried out to the instructions of the senior competent person present.

When any person receives instructions: regarding work on or the operation of high voltage apparatus he shall report any objection to the carrying out of such instructions to the competent person who shall have the matter investigated and, if necessary, referred to higher authority.

5 ACCESS TO HIGH VOLTAGE ENCLOSURES AND APPARATUS

Enclosures, chambers, cubicles or cells containing high voltage conductors shall be kept locked and shall not be opened except by a competent person.

6 SWITCHING:

(a) No switching shall be carried out without the sanction of the appropriate competent person except for agreed routine switching or in cases of emergency.

All telephone instructions/messages relating to the switching operation shall be written down and be repeated in full to the sender to ensure that the message has been accurately received.

(b) When a switch shows any sign of distress after operating, its condition shall be immediately reported to the appropriate competent person, and it shall be examined before further operation.

(c) The examination of and necessary adjustments including inspection and/or changing of oil of any high voltage oil immersed circuit-breaker which has operated under fault conditions shall be carried out if possible before the circuit-breaker is re-closed, or at the earliest available opportunity thereafter.

7 WORK IN SUBSTATIONS AND SWITCHING STATIONS CONTAINING EXPOSED LIVE CONDUCTORS.

7.1 Safety Clearances to Live Conductors:

Unless the whole equipment is "dead", the section which is made dead for work to be carried out shall be defined by the use of barriers or roping such that the minimum clearance from the nearest exposed conductor to ground level or platform or access way shall be:-

Rated Voltage	Clearance
Up to 11 kV	3.0 m.
From 11kV to 33kV	3.4 m

The area at ground level shall be only that in which the work is to be carried out.

7.2 Insufficient Clearances

If the above clearances are not sufficient to avoid danger, other suitable arrangements shall be made to provide the requisite degree of safety.

7.3 Ladders and Other Long Objects

Ladders and other long objects shall not be used without the permission of the senior authorised person in charge of the work and the movement and erection of such ladders shall be under his/her direct supervision at all times.

8 WORK ON METAL CLAD SWITCHGEAR SPOUTS:

(i) The section of bus bars on which work is to be carried out shall be made dead and isolated from all points of supply.

(ii) The shutters of live spouts shall be locked closed.

(iii) The busbars shall be earthed with approved earthing equipment if possible, at a panel other than that at which work is to be carried out. Temporary earths shall in any case be applied to all phases on the busbar at the point of work. These earths may then be removed one phase at a time for work to be carried out. Each phase earth shall be replaced before a second phase earth is removed.

For the earthing of metal clad switchgear, approved appliances only shall be used. The insertion of the hand or any other tool in contact spouts for this purpose is forbidden.

9 WORK ON TRANSFORMERS:

When work is carried out on transformers, both the primary and secondary switches and isolators shall be opened. The transformer shall also be isolated from all common neutral earthing equipment from which it may become live. This does not require the disconnection of solidly earthed neutrals.

10 WORK ON CABLES, CONDUCTORS AND OVERHEAD LINES:

10.1 Cables and Conductors

(a) No person shall touch the insulation, which covers or supports any high voltage conductor unless the conductor is dead and earthed.

(b) Before carrying out work involving cutting into a high voltage cable, the responsible person shall satisfy himself that the cable has been made dead, isolated and earthed where practicable and identified. In all cases of doubt, the cable shall be spiked in an approved manner.

10.2 Overhead Lines

(a) All persons while at work on towers, poles and high structures or when working on live lines shall make proper use of their safety belts and safety equipment, and no man shall work alone at any tower or high structure, or on live equipment.

(b) The senior authorised person in charge of the work shall satisfy himself that the line conductors are short circuited and earthed before work is commenced. When work has been completed, the responsible person shall ensure that all temporary earths have been removed and that the line is safe to be made alive.

(c) When work is carried out on a high voltage line, earths shall be placed at the point or points where the work is being done in addition to the earths provided at the points of disconnection.

(d) In the event of the near approach of a lightning storm, all work on overhead lines shall cease immediately and the authorised person in general charge of the work shall be informed.

(e) For the safety of the public, strain insulators shall be placed in all stays on overhead lines.

APPENDIX 1

EMERGENCY FIRST AID, RESCUE AND RESUSCITATION IN THE CASE 0F ELECTRIC SHOCK

1. FIRST AID:

1.1 Burns:

Treat with Vaseline to exclude air.

1.2 Shock:

In addition to suffering from electric shock, it is also probable that the patient will be suffering from physical shock and important that this condition be treated.

The patient must be kept warm with blankets and/or coats, and if available, hot water bottles should be applied to the feet.

1.3 Drinks:

Drinks must on no account be administered unless the patient is fully conscious.

Alcoholic drinks should not be administered unless recommended by a doctor.

2. RESCUE

The procedure to rescue persons from contact with a live conductor cannot definitely be laid down for all cases. However, certain principles and methods are outlined which all persons working on electrical apparatus or assisting in such work should know.

3. RELEASES FROM CONTACT WITH LIVE CONDUCTORS

3.1 Low voltage

(a) Observe quickly the general circumstances of the case, whether special difficulties are involved and if special precautions are necessary. Every second is precious and delay may be fatal; be prepared, therefore, to act promptly. Speed of action must be accompanied with due care.

(b) Take precautions against receiving a shock your self. Remember that the patient, until released, is electrified at the same voltage of the live conductor.

(c) In cases where the contact has been made on a live conductor with adjacent switch control, the switch should be opened immediately and then the patient pulled clear. If in doubt about which switch to open, all switches should be opened; but assume all conductors are still alive unless some method is available to determine that the conductors are dead.

(d) When conductors cannot be de-energised immediately by adjacent switch control, the procedure will depend on the voltage of the live conductor.

In all cases it is necessary for the rescuer to be adequately insulated against shock from a conductor to earth and against shock from a conductor to conductor, or by touching the patient.

For low and medium voltage (up to 650 V) rubber gloves, rubber sheeting or dry cloth, including loose portions of the patients clothing, provide adequate insulation for the rescuer's hands. The use of such insulating guards should always be aimed for; but a dry pole with no associated earthed metal on it provides adequate insulation for the rescuer against shock from a conductor (or patient's body to earth).

(e) Cutting away a conductor (carrying up to 650 V only) may provide a quick and easy method of release in some cases. It is useful especially when delay might otherwise occur in releasing the patient. This method requires that the rescuer has sound knowledge of what he/she is doing.

(f) Prevention of patient falling from aloft; when a patient is being rescued above ground level, care must be taken to ensure that he does not fall from a dangerous height when pulled clear or when conductors are de-energised.

(g) Be prepared to use considerable force when releasing a patient who is holding a live conductor. Punch the wrist heavily on the inner side or strike the back of the hand. It may be easier in some cases to use one's foot to force the patient's hand clear.

3.2 High voltage

For high voltage it is necessary to put an extra long, say 2 m or more, dry insulating material, such as wood or rope, between the rescuer's hands and the patient to enable the patient to be pushed or pulled clear of the conductor, or enable the conductor to be cleared from the patient.

4. RESUSCITATION AFTER CONTACT WITH LIVE CONDUCTORS

Immediately after rescue, a rapid but careful examination of the patient must be made to determine the extent of treatment necessary.

Electric shock may cause breathing to stop because of a sudden paralysis of the respiratory centre and it may also cause a failure of the circulation because the shock has affected the heart.

The method of resuscitation will therefore depend on the patient's condition.

4.1 Patient breathing

If the patient is breathing and his heart is beating then in a large majority of cases recovery will be rapid.

Do not apply artificial respiration if the patient is breathing. Let the patient have plenty of fresh air. If the patient is in a collapsed condition, lay him on his back in as comfortable a position as practicable with his head tilted slightly back. This will keep his airway open and assist breathing. A pad, if available, placed under the patient's shoulders will assist in keeping his head back. Loosen any tight clothing.

4.2 Patient not breathing

If breathing has stopped or is very weak or appears to be failing, commence artificial respiration without delay.

4.3 Circulation

In cases of electric shock, failure of the heart should be suspected if the patient does not quickly show some response to artificial respiration. Circulation should be assessed within fifteen seconds after the commencement of artificial respiration.

Feel for a pulse in one of the carotid arteries in the patient's neck. This is done with the pads of the fingers at the level of and at either side of the Adam's apple. Do not feel both carotid arteries at the same time, as this would stop the flow of blood to the brain. If the heart is beating, a pulse will be felt.

If no pulse is felt, lift the patient's eyelids. If the heart is not beating the pupils of the eyes will be large and will not become smaller when exposed to light by the lifting of the eyelids. If the heart is beating the pupils will become smaller when exposed to the light.

The absence of a pulse in the carotid artery and the enlarged pupil of the eye, which does not become smaller when exposed to light, indicate that the heart has stopped beating.

(a) Patient's heart beating. Do not apply external cardiac (heart) massage when a pulse can be felt.

(b) Patient's heart not beating. If the heart has stopped beating commence external cardiac (heart) massage without delay.

4.4 General

Immediately resuscitation is commenced, send for medical assistance and an ambulance and notify the hospital if applicable.

If the patient is not breathing and his heart has stopped beating, artificial respiration by the expired air method should be carried out in conjunction with external cardiac (heart) massage.

Every second you wait can cause severe brain damage through lack of blood and oxygen.

Artificial respiration and external cardiac (heart) massage must be commenced without delay and should be continued until breathing is restored and the heart starts beating or until a doctor advises that further efforts will be of no avail.

Care should be taken to avoid, as far as possible, aggravating any injuries the patient may have sustained.

4.5 Artificial respiration

If available in order to reduce the risk of infection it is recommended that a facemask or shield be used for both mouth to mouth or mouth to nose artificial respiration. However, time should not be lost in getting a face mask/shield.

Examples of Masks

Alternatively a clean cotton handkerchief can be used to cover the mouth.

It is not necessary to be highly trained in resuscitation methods to carry out artificial respiration effectively.

Simply stated, artificial respiration is a means of supplying oxygen to the patient's lungs, and thus, through the blood, to his brain to keep him alive while his own breathing is suspended.

The expired air method of artificial respiration is recommended as the best universally applicable field type of artificial respiration.

For artificial respiration the patient's head must be kept well back to ensure a free passage to the lungs. Exact rhythm and timing in carrying out artificial respiration are unimportant. The only purpose of artificial respiration is to get oxygen into the patient's lungs.

Artificial respiration must be continued until breathing is restored or until a doctor advises that further efforts will be of no avail.

4.5.1 Expired air artificial respiration

In the expired air method of artificial respiration the rescuer breaths his own exhaled breathe into the patient's lungs.

The normal air we breathe in contains 20 per cent oxygen. The air we exhale contains about 16 per cent oxygen and this is ample to keep the oxygen content in the patient's blood normal if it is breathed into him at about the rate of normal breathing.

Therefore, quickly ensure that the patient's throat is free from foreign matter. Next place him on his back and tilt the head well back (Fig.A1.1) this ensures an open passageway to the lungs. Placing a pad under the patient's shoulders will make the tilting of the head easier. However, time should not be lost in getting a pad.

The rescuer may then breathe into the patient's mouth or nose.

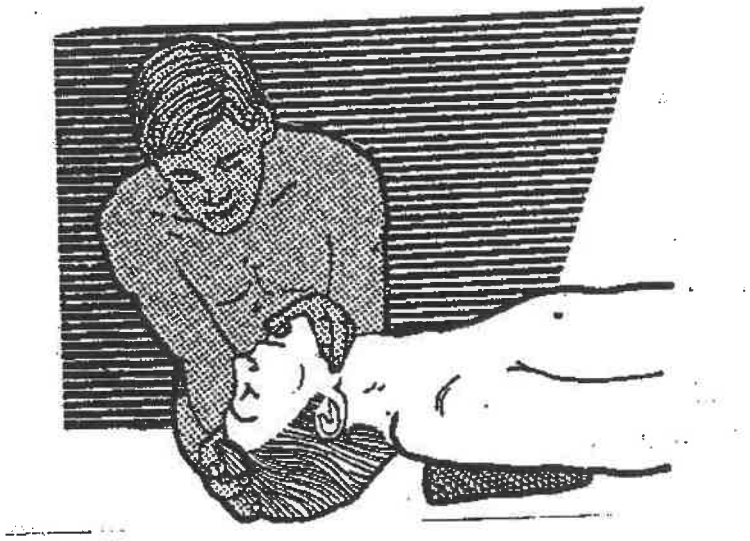

Figure A1.1

Lift the neck and tilt the head back. Hold the head tilted so that the skin over the throat is stretched tight. With one hand push the crown of the head down, remove the other from below the neck and use it to pull up the chin. This prevents the tongue from causing an obstruction.

4.5.2 Mouth-to-mouth method

The patient's head is tilted well back as in Figure A1.1 his mouth is opened and the rescuer opens his mouth wide and makes an air-tight seal around the patient's mouth as shown in Figure A.1.2. The rescuer's cheeks will normally seal the patient's nostrils, but if necessary the nostrils must be pinched closed with the fingers. The rescuer then breathes into the patient. The resistance to the rescuer's breath is about the same as that experienced when blowing up a balloon. The chest should be seen to rise.

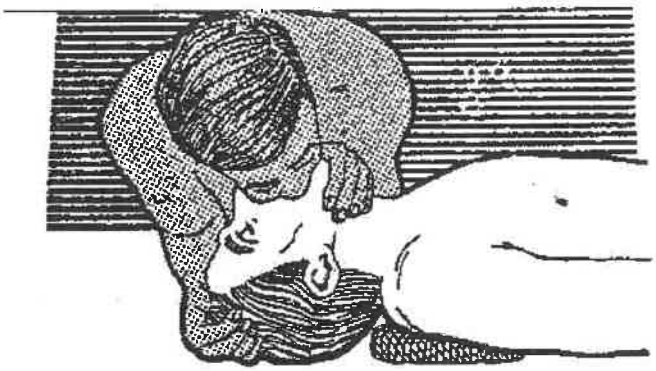

Figure A1.2

Seal your lips widely around the victim's mouth. Fold his lower lip down to keep his mouth open during inflation and exhalation. To prevent leakage, press your cheek against his nostrils during inflation. Blow air into the victim until you see the chest rise. Then remove your mouth to let him breathe out. Take your next breath as you listen to the sound of his breath escaping. Re-inflate his lungs as soon as he has exhaled.

Having breathed into the patient's lungs, the rescuer removes his mouth and, turning his face to one side to avoid the patient's exhaled breath, takes another deep breath and again breathe into the patient's lungs. This is kept up at a steady rate of from ten to fifteen times per minute.

One rescuer can take over from another. Remember rhythm and timing are not important but the patient must under no circumstances be left without air for longer than a minute.

4.5.3 Mouth-to-nose method:

The patient's head is tilted well back as in Figure A1.1. The rescuer opens his mouth and places it right over the patient's nose making an airtight contact (Figure A1.3) The lips do not contact the nostrils as this would tend to close them. The patient's mouth is held closed and the rescuer breathes into his patient as in the mouth-to-mouth method.

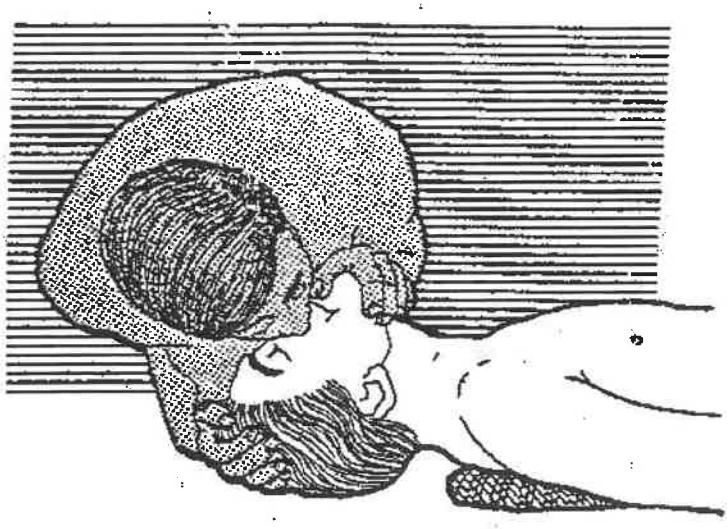

Figure A1.3 ~ Mouth-to-nose method

4.5.4 Filling the lungs:

The rescuer blows steadily and firmly, not with a jerk, and the patient's chest should be seen to rise. If air does not appear to be entering the lungs, quickly look for any blockage in the air passage, check the head again, making sure the jaw is well forward and the head tilted well back, and commence blowing again.

About ten good quick breaths should first be breathed into the patient as soon as he is reached. This will oxygenate his blood and give the rescuer a minute or so to get his patient into a more convenient location for continuing artificial respiration, for example, to lower a linesman from a pole.

5. EXTERNAL CARDIAC (HEART) MASSAGE

The lives of people whose hearts have ceased to function can often be saved by the prompt application of a form of resuscitation known as external cardiac (heart) massage (for example, massage of the heart without opening the chest). This massage may be performed by anyone.

The heart is in the centre of the chest between the breast-bone and the spine and if pressure is applied to the lower half of the breast-bone, the heart is compressed and the blood is squeezed out of it into the arteries. When the pressure is released the breast-bone springs back into place, the heart, like a rubber ball, resumes its shape and in so doing allows blood from the veins to enter. Valves in the heart prevent blood flowing back into the heart from the arteries.

In this way a heart which has either stopped beating altogether or which has gone into ventricular fibrillation (a state of ineffective quivering often caused by electric shock) can be made to circulate the blood.

This compressing and releasing of pressure on the heart carried out rhythmically at a rate of approximately 60 compressions per minute is called external cardiac (heart) massage. It can keep a person alive if breathing is maintained, until his heart resumes its proper beating. A heart in ventricular fibrillation will require hospital treatment to restore normal heartbeat, but the heart can be made to circulate blood by external cardiac (heart) massage until the necessary medical aid is obtained.

It is desirable that adequate training in external cardiac (heart) massage be given to develop the technique. This can best be achieved with a training aid.

5.1 Technique:

Lay the patient on his back on a firm surface.

Feel for the notch at the top of the breast-bone (sternum) with one hand and for the lower end with the other. It is on the lower half of this bone that the pressure has to be made (see Figure A1 4)

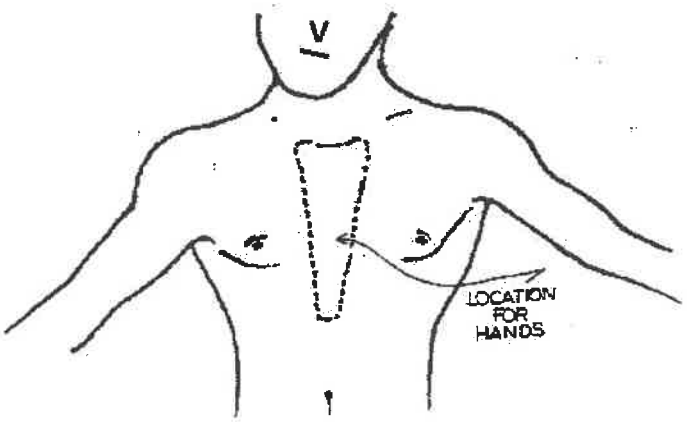

Fig A1.4: Location of the rescuers hands for external cardiac (heart) massage.

The rescuer leans directly over the patient and places the heel of one hand (either hand) on the lower half of the patient's breast-bone and places the heel of his other hand on the back of the first (one hand for a child' two fingers for an infant). The fingers should not press on the patient's chest as this would reduce the effectiveness of the pressure on the heels of the hands.

Keeping the arms straight, the rescuer presses down sharply and firmly to depress the patient's breast-bone from 30 to 50 mm in the case of an adult, depending on his build. Immediately release the pressure to allow the chest wall to recoil. If the technique is correctly applied it will not damage the patient's ribs.

If the patient is not breathing, external cardiac (heart) massage will be of no avail unless artificial respiration (expired air method) is carried out at the same time.

If only one rescuer is available, two breaths are given by the expired air method followed by fifteen chest compressions at the rate of approximately one per second.

Where two rescuers are available, one breathes into the patient and the other gives five chest compressions between each chest inflation. The rescuer giving the breaths should also feel for the pulse in the patient's carotid artery during resuscitation.

The chest should not, of course, be compressed at the same time as it is being inflated.

APPENDIX II

TESTING PROCEDURES AND PRECAUTIONS FOR COMMISSIONING OF ELECTRICAL CABLES

The aim of this section is to create an awareness of the latest standards and testing procedures for the commissioning of new and the re-commissioning of repaired electrical cables.

Before commissioning or re-commissioning cables tests must be carried out to ensure the integrity of the cable/s and to ensure the safety of operating personnel.

1. Low voltage Cables

1.1 Initial Tests

Carry out a meter test to ensure that the insulation resistance complies with the manufacture's and the relevant SABS requirements. For L.V. cables a 500V d.c. meter is adequate for this purpose.

1.2 Voltage Tests

This covers extruded solid dielectric cables (covered by SABS 1507), voltage ranges are as indicated in Table 1

After installation the cable has to be tested to ensure the integrity of the cable and the quality of the work. A.C. testing of solid dielectric cables is preferred. Very low frequency high voltage sinusoidal electrical testing methods are recommended to avoid the use of cumbersome large testing equipment.

Method: The test voltage should be applied between conductors and between each conductor and the metallic protection or earthed surroundings of the cable as appropriate. The voltage to be raised gradually to the specified values in the table and maintained for 15 minutes.

Table1 -Test Voltages After Installation

1	2	3	4
ble operating voltage	e test voltage is to be applied	Test Voltage V	
		.m.s)	d.c.
300/500	een Conductors and conductors/earth	)	)
600/1000	een Conductors and conductors/earth	)	)
1900/3300	een conductors	)	)
1900/3300	een Conductors and conductors/earth	)	)

2. Medium/High Voltage

Each section of the cable installation between substations shall be subjected to a preliminary voltage or insulation resistance test to prove the insulation resistance.

The installation resistance can be measured with a high voltage meter with a rating of 5000V.

2.1 Paper Insulated Lead covered Double Steel Tape or Wire Armoured Cable (covered by SABS 97), voltage ranges are as indicated in Table 2

The test voltage should be applied between conductors and between each conductor and the metal sheath, which should be held at earth potential. In each case, the voltage should be increased steadily to the stipulated value and maintained at this value for 15 minutes.

Table 2 in-situ test voltages.

1	2	3	4	5	6	7
ge Rating of Cable kV	Test Voltage					
	Belted Cables				le–core and screened cables	
	Between conductors		From conductor to sheath		veen conductor and sheath or screen	
	a.c.	d.c.	a.c.	d.c.	a.c.	d.c.
3.3/3.3	7	9	7	9	-	-
3.8/6.6	13	19	8	11	8	11
6.6/6.6	13	19	13	19	-	-
6.35/11	22	31	13	19	13	19
11/11	22	31	22	31	-	-
12.7/22	-	-	-	-	25	36
19/33	-	-	-	-	38	54

2.2 XLPE-Insulated Cables covered by SABS 0198 Part 13.

NOTE: If circumstances necessitate testing that is not in accordance with the recommendations of this section, the cable manufacturer or a test expert should be consulted before any testing is carried out.

The use of inappropriate or excessive test voltages or of unsuitable fault location methods can damage XLPE-insulated cables. Cables that are particularly prone to damage during testing are those that have water trees and those that have a construction that differs from that specified in the 1981 and in subsequent editions of SABS 1339.

The Types of Test Waveforms to be applied are:

a) Very low frequency (VLF): An Alternating waveform that is either sinusoidal or pseudo-square/cosine rectangular, of nominal frequency 0,1 Hz.
b) Power frequency: An alternating sinusoidal waveform of frequency in the range 25 Hz to 100 Hz.
c) Surge: A step waveform that has a rise time of a few microseconds and that gradually decays to zero within 5 s.

These waveforms are referred to in the various test tables below.

Note: Where the capacity of the test set permits, all three cores of a three-core cable may be tested together.

2.2.1 PRELIMINARY TESTS

2.2.1.1 Leakage Resistance. Before carrying out any testing or fault location, determine and accurately record the leakage resistance to earth and, if relevant, between conductors. Use an instrument that generates a d.c test voltage of not less than 250 V and not more than 5 kV. Typical minimum values of leakage resistance are given in Table 3.

TABLE 3—MINIMUM LEAKAGE RESISTANCE

1	2	3	4	5
Cable Operating voltage *U*, kV	Minimum leakage resistance, MΩ			
	Cable length, m			
	100	300	1 000	3 000
6,6	150	50	15	5
11	240	80	24	8
22	460	153	46	15
33	680	227	68	23

NOTE:

1 The value of leakage resistance multiplied by the cable length should not be less than (2 U + 2) MΩ.km, where U is the voltage rating of the cable in kilovolt.

2 This test is repeated after the required sequence of tests (see 2.2.2.7).

2.2.2 TESTING

2.2.2.1 Over voltage Commissioning Tests. When newly installed cables are being commissioned, they should be tested at the test voltages given in Table 4, appropriate to the test waveforms and test durations given in columns 1 and 2 of the table.

TABLE 4—COMMISSIONING TEST VOLTAGES (r.m.s.)

1	2	3	4	5	6
Test waveform (see 2.2)	Duration, Min	Commissioning test voltage, kV			
		Cable Operating voltage, kV			
		6.6	11	22	33
VLF (0,1 Hz)	60	11	19	38	57
Power frequency	60	8	13	25	38

NOTE:

1. Test sets for the above are commercially available.
2. Where the above test levels cannot be achieved, a reduced voltage for an extended time may be negotiated.

2.2.2.2 Overvoltage Maintenance/Repair Tests. When cables are tested for maintenance or repair purposes, they should be tested at the test voltages given in Table 5, appropriate to the waveforms and test durations given in columns 1 and 2 of the table.

2.2.2.3 Surge Test Method (see Table 5). The surge test is intended to be a practical basic safety test. It can be used as a non-damaging means of identifying fairly serious existing or potential faults when power frequency or VLF equipment is not available. The test avoids the application of a continuous d.c. voltage (see 2.2.2.4), but it is not as conclusive or rigorous as the other methods.

CAUTION: During the surge test, a peak voltage of up to twice the test voltage can be generated in the cable.

Method. Charge the surge generator to the appropriate test voltage given in Table 5. Using single-shot mode, release a surge into the cable and then soft-discharge the cable (see 2.2.5.5) within 5 s. Repeat the procedure up to five times and then fully discharge the cable by solidly earthing it for at least 5 min.

TABLE 5—MAINTENANCE/REPAIRS TEST VOLTAGES (r.m.s.)

1	2	3	4	5	6
Test waveform (see 2.2)	Duration	Maintenance/repair test voltage, kV			
		Cable operating voltage, kV			
		6.6	11	22	33
VLF (0,1 Hz)	15 min	8	13	25	38
Power frequency	15 min	7	11	22	33
Surge test (see 2.2.1.3)	5 surges, max.	7	11	22	33

2.2.2.4 D.c. Over voltage Testing. D.c. over voltage testing is likely to cause irreversible damage to XLPE-insulated cable systems, particularly if the cables have water trees. It often fails to identify potentially hazardous conditions in the cable. If d.c. testing has to be carried out because no other test methods are available, the voltage and duration should be limited to the appropriate values given in Table 6, which are recommended for quick identification of gross faults only. Use a d.c. test set or a surge generator in d.c. mode to apply the test voltage. After applying the voltage, soft-discharge the cable (see 2.2.2.5), using either the d.c. test set or a discharge stick. Fully discharge the cable by solidly earthing it for at least 8 h but preferably for 24 h.

TABLE 6—D.C. TEST VOLTAGES

1	2	3	4	5
Duration, s	D.c. test voltage, kV			
	Cable operating voltage, kV			
	6.6	11	22	33
10	6	10	20	30

2.2.2.5 SOFT DISCHARGE OF CABLE. An XLPE-insulated cable should always be soft-discharged through a resistance of at least 200 kΩ, for example by using a discharge stick. Discharging a conductor direct to earth by short-circuiting it with a lead can severely damage the cable. After the initial discharge, a cable should be solidly earthed for at least 5 min. If the cable has been subjected to any form of d.c. test, it should be solidly earthed for at least 8 h, but preferably for 24 h.

2.2.2.6 CABLE SHEATH TESTING. To avoid problems caused by the ingress of water into the cable, a cable should be subjected to sheath testing:

a) at commissioning,
b) annually, and
c) after the location and repair of a fault.

Cable sheath testing can also be used to locate conductor earth faults that have punctured the outer sheath, provided that multiple sheath faults are not present. A direct current sheath test voltage of 5 kV should be applied for 1 min, with a leakage current of 1 mA/km being regarded as acceptable.

2.2.2.7 AFTER TESTING. After completion of any of the above tests, the leakage test described in 2.2.1.1 should be repeated. A tenfold reduction in the value of leakage resistance could indicate a potential problem.

2.2.3 CIRCUIT-BREAKER CLOSURE

2.2.3.1 Faulty or Unknown Cable Conditions. Closing a circuit-breaker on an untested cable can be hazardous to the operator and can damage the cable. A fault should never be re-established by repeated closing of a circuit-breaker.

2.2.3.2 Voltage Doubling. During switch-in onto open circuit, voltage doubling occurs at the remote end of the cable. Voltages of up to 20 kV can occur on an 11 kV system. Switching onto a load such as a transformer avoids this voltage doubling.

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Department of Labour

GUIDE GENERAL ADMINISTRATIVE REGULATIONS, 2003

Chief Directorate of Occupational Health and Safety

NO: OHC 5

INTRODUCTION

As the name of the regulation indicates, the General Administrative Regulations determines the administrative procedure of the Occupational Health and Safety Act. This procedure was not placed in the Act itself owing to the fact that changes can be made to a Regulation with greater ease than that of a Section in the Act. A change to a Section of the Act needs to be passed by parliament whereas the Minister of the relevant Department can approve a change in a Regulation.

The General Administrative Regulations, as is the case with all other regulations, is an extension of the Act and should therefore be seen as a complete unit.

Terms, which were previously defined in the Act, are not redefined in the Regulations. If a specific definition does not appear in the Regulations, then it should be available in Section 1 of the Act.

DEFINITIONS

All new phrases as well as words (expressions and words which differ from the standard dictionary definitions) that are used in this regulation, which have not been defined in the Act, will be defined in this regulation. Where the Act or regulation refers to "mean" the definition in the Act or regulation must be considered and where there's reference made to "It Includes" definition from the Act and regulation including the oxford dictionary must be considered

ACCESS TO PREMISES

It is prohibited for an employer to refuse an inspector entry to perform his or her function because an inspector is entitled by the law to enter employer's workplace.

Employers should always ensure that inspectors are accompanied by a person who has knowledge and experience of the activities and safety requirements of the workplace.

EXEMPTIONS

Any exemption, which has been granted to any person shall be signed by the Chief Inspector of the Department of Labour. An person who wishes to apply for an exemption should forward his/her application to the office of the Chief Inspector in Pretoria. The application for exemption should indicate proof that the health and safety of persons who are likely to be affected by the exemption will not bee prejudiced in consequences of it. Health and safety representatives and committees must be consulted during the whole process and given time to comment.

COPY OF THE ACT

Employees together with employers have certain duties and rights, which have been assigned to them in terms of the Act. In order to comply with the provisions of the Act and regulations, each employee must have access to a copy of the Act. This regulation requires that—

(a) Each employer with 5 or more employees shall have a copy of at least one Act, which will be made readily available for perusal by the employee. Owing in the fact that a workplace can be made up of a very large area, and that the legislator did not intend to be unreasonable, various concessions are made. For example, a meter-reader in the town of Brits' workplace is the Municipal area of Brits. In such a case it is expected that a copy of the Act be made available at the point where the employee reports for duty in the morning, or any other suitable position as agreed upon with the employer.

(b) Each employer with less than 5 employees, shall, if requested provide a copy of the Act for perusal by the employees. This includes farm workers and domestic servants.

The copy of the Act may be an electronic reproduction or from a library. The Act and Regulations are amended from time to time, and it is therefore important to remember that one must obtain a copy of the latest amendments to keep up to date with the current legislation.

HEALTH AND SAFETY COMMITTEES

The Health and Safety committees are made up of all the Health and Safety Representatives together with an equal amount of employer appointee representatives to represent the employer (there can be more than one committee to avoid a large congregation of representatives). If more than two committees are established, each health and safety representative must be member of at least one of the committees. These committees are the point around which self-regulation revolves.

Employer should provide necessary equipment, facilities and stationary required by the committee in order them to perform their functions.
It is important to keep the records of the meeting as they can be used as evidence for action taken to eliminate hazards and vice versa

NEGOTIATIONS AND CONSULTATIONS BEFORE DESIGNATION OF HEALTH AND SAFETY REPRESENTATIVES

The regulation prescribe the items which must be agreed upon during negotiations between the employer and employees representatives. If a dispute arises between the employees and employers or his authorised representative, the matter should be referred for arbitration. Both parties shall submit a statement within a prescribed period to both the arbitrator and the other party concerned.

The statement is to contain the following information:

(a) The proposal for the arrangements and procedures for the nomination of the Health and Safety Representatives.

(b) The decision which is sought.

The arbitrator should then:

(a) Determine when and where the arbitration procedure shall be held. The arbitration may be held in the absence of the party who failed to submit a statement to the arbitrator and other party;

(b) Determine whether a pre-hearing conference shall be held;

(c) Determine which arbitration procedures shall be followed;

(d) Determine the procedures for the admission of evidence;

(e) Determine the admissibility of hearsay evidence; and

(f) Determine other relevant procedural matters.

In terms of Section 17(2) of the Act both parties are to come to a decision within 14 days as to who the arbitrator shall be. If no decision can be made, the president of the Labour Court is to be notified in writing. The president of the Labour Court in consultation with the Chief Inspector shall appoint an arbitrator, whose decision shall be final. This arbitrator will be entitled to receive remuneration as is payable to an additional member of the Labour Court.

DESIGNATION OF HEALTH AND SAFETY REPRESENTATIVES

The employer must designate Health and Safety Representatives as follows:

- Shops and offices— one for up to 100 employees; and
- Workplaces other than shops and offices— one for up to 50 employees.

The employer shall ensure that employees designated as health and safety representatives meet the following requirements:

- Employed in a full-time capacity in the specific workplace or section thereof;
- Acquainted with conditions and activities at that workplace or section thereof, and
- Taking into account the nature of hazards associated with the activities of the workplace or section thereof, the employer shall provide as far as is reasonable practicable health and safety training to the health and safety representatives on how to identify health and safety risks and how to conduct inspections of the workplace or section thereof.

REPORTING OF INCIDENTS AND OCCUPATIONAL DISEASES

Section 24 of the Act refers to certain incidents occurring at the workplace, or in connection with the use of machinery whereby a person dies or is injured to be extent where he is likely to die or could have resulted in a major incident. Such incidents should be reported to the Provincial Director on a WCL 1 or WCL 2 form within seven days.

Certain other types of incidents must be reported to the Provincial Director telephonically, facsimile or similar means of communication and these types of incidents are as follows—

(a) Where a person, as a result of the incident;

i) Dies;
ii) Becomes unconscious;
iii) Suffers the loss of a limb or part thereof;
iv) Is injured to the extent that he is likely to die;
v) Is injured to the extent that he is likely to be permanently disabled;
vi) Is injured to the extent that he is likely to be off for a period of 14 days or more;
vii) Cannot perform his normal duties (those duties for which he was employed).

(b) An incident of major consequence arising out of the use of industrial equipment or machinery or industrial practices at a workplace.

(c) The health and safety of any person is endangered and where –

i) A dangerous substance was spilled;
ii) The uncontrolled release of any substance under pressure (pressure greater than 1 atmosphere) took place;
iii) Machinery or any part thereof fractured or failed, resulting in flying, falling or uncontrolled moving objects; or
iv) Machines, which ran out of control.

These incidents should also be recorded and investigated in accordance to Regulation 8 of the General Administrative Regulations.

If an injured person is to die as a result of an incident, which has already been reported in terms of the above, the employer or user should report such death to the Provincial Director.

Any registered medical practitioner should, in terms of Section 25 of the Act, report all (to the employer and Chief Inspector) cases of occupational diseases or any other disease, which he believes arose out of a person's employment, which he/she has treated. This must be done within 14 days in the form of a WCL 22 form.

Any other person may in writing, give notice of any disease suspected to be an occupational disease, to the employer and chief inspector.

RECORDING AND INVESTIGATION OF INCIDENTS

The employer or user of machinery should keep record and investigate all incidents referred to in terms of Section 24 of the Act together with any other incident, which resulted in the person concerned having had to receive medical treatment other than first aid.

These incidents must be recorded in the form of Annexure 1 of these regulations and be kept for a period of at least 3 years. This record shall be kept on the premises and available for perusal by an inspector.

The employer, a designated person, a health and safety representative or a member of the health and safety committee must investigate the above-mentioned incidents. This investigation should take place within 7 days from the date of incident and completed as soon as is reasonable practicable or within the contracted period of contract workers. The employer should record the result of the investigation in the Annexure 1. The purpose of the investigation is to establish the cause of the incident together with the safety measures that can be implemented to prevent the re-occurrence of such incidents in the future.

The health and safety committee shall examine this record at their next meeting.

WITNESS AT AN INQUIRY

The chief inspector can, in terms of Section 32, direct an inspector to hold a formal inquiry as a result of an incident reported in terms of Section 24 (refer to Regulation 6). In such an instance, the inspector shall inform the employer or user of machinery of his intentions, and request the following from him/her:

a) That all persons witness to the incident; and
b) That any other person as required by the inspector,

be notified in connection with the time, date and venue of the formal inquiry.

The employer or user of machinery is to establish which persons are likely not to attend the inquiry, and shall advise the inspector of the names and addresses of such persons to allow the inspector to subpoena such persons.

RETURNS

An employer or user shall furnish the inspector with such information as requested for the purpose of the Administration of the Act.

IMPORTANT CONTACT DETAILS

(FOR HEALTH & SAFETY ASPECTS ONLY)

The contractor is to add all the important contact information about essentials services, support and assistance.

	SERVICE	NUMBER	CONTACT PERSON
	Hospital		
	Ambulance		
	Water		
	Electricity		
	Police		
	Fire Brigade		
	Engineer		

ADD OTHER IMPORTANT HEALTH & SAFETY CONTACT DETAILS AS MAY BE FOUND NECESSARY.

EPWP SPECIFICATION:

VULAMEHLO MAGISTRATE'S OFFICE: REPAIRS AND RENOVATIONS TO OFFICE BUILDINGS

SL **EMPLOYMENT AND TRAINING OF BENEFICIARIES / PARTICIPANTS ON THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP) - INFRASTRUCTURE PROJECTS**

CONTENTS

SL 01 SCOPE

This project is part of the Expanded Public Works Programme and aims to provide work opportunities to local participants and train young people through National Youth Programme to ensure access to practical work experience. The project comprises of works to be undertaken labour-intensively and these activities are to be undertaken by local semi-skilled or unskilled labour.

As part of the National Youth Service Programme, youth aged between 18 and 35 will also be recruited and trained in skills relevant to the work to be done on this project. These youth will have to be employed by the contractor as part of this project so that they can gain their work experience in the project. The training of the youth will be coordinated and implemented by a separate service provider. This service provider will provide the contractor with a list of all the youth and the training each of these youth have received. The Contractor will be required to employ all of these youth for a minimum period of 12 months. Furthermore the

Contractor will be required to supervise these youth to ensure that the work they perform is of the required standard. If necessary the contractor's staff will be required to assist and mentor the youth to ensure that they are able to perform the type of work they need to do to the satisfactory standards required. The contractor will not be required to employ all youth in the programme at the same time, but may rotate the youth on the project, as long as all youth are employed for the minimum duration stated earlier.

This specification contains the standard terms and conditions for participant employed in elementary occupations and trained on Expanded Public Works Programme (EPWP) for the semi-skilled and unskilled local Labour as well as youth employed as part of the National Youth Services Programme. These terms and conditions do NOT apply to persons employed in the supervision and management of EPWP. Refer to The Guidelines document.

SL 02 TERMINOLOGY AND DEFINITIONS

SL 02.01 TERMINOLOGY

(a) Code of Good Practice - for Expanded Public Works Programmes, which has been gazetted by the Department of Employment and Labour, and which provides for special conditions of employment for these EPWP projects. In terms of the Code of Good Practice, the participants on these projects are entitled to formal training, which will be provided by training providers.

(b) EPWP Expanded Public Works Programme, a National Programme of the government of South Africa, approved by Cabinet.

(c) NYDA National Youth Development Agency.

(d) DOE&L Department of Employment and Labour.

(e) NYS National Youth Service. The National Youth Service is aimed at assisting the youth (between ages of 16 and 35) to gain occupational skills in order to access sustainable livelihood opportunities.

SL 02.02 DEFINITIONS

(a) "employer" means the contractor or any party employing the worker participant under the EPWP.

(b) "client" means the Department of Public Works.

(c) "worker / trainee" means any person working or training in an elementary occupation on the EPWP.

(d) "Youth Beneficiary" means any person working or training in an elementary occupation on the EPWP as part of the National Youth Service

SL 03 APPLICABLE LABOUR LAWS

In line with the Expanded Public Works Programme (EPWP) policies, the Ministerial Determination, Expanded Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of labour in government Notice No. R63 of 25 January 2002, of which extracts have been reproduced below in clauses SL 04 shall apply to works described in the scope of work and which are undertaken by unskilled or semi-skilled participants.

The Code of Good Practise for Employment and Conditions of Work for Expanded Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Employment and Labour in Government Notice No. R64 of 25 January 2002 shall apply to works described in the scope of work and which unskilled or semi-skilled participants undertake.

SL 04 EXTRACTS FROM MINISTERIAL DETERMINATION REGARDING EPWP

SL 04.01 DEFINITIONS

In this specification –

(a) "department" means any department of the State, implementing agent or contractor;

(b) "employer" means any contractor that hires participants to work in elementary occupations on the EPWP;

(c) "worker" means any person working in an elementary occupation on the EPWP;

(d) "elementary occupation" means any occupation involving unskilled or semi-skilled work;

(e) "management" means any person employed by a department, contractor or implementing agency to administer or execute EPWP work;

(f) "task" means a fixed quantity of work;

(g) "task-based work" means work in which a worker is paid a fixed rate for performing a task;

(h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;

(i) "time-rated worker" means a worker paid on the basis of the length of time worked

(j) "Service Provider" means the consultant appointed by Department to coordinate and arrange the employment and training of labour on EPWP infrastructure projects.

SL 04.02 TERMS OF WORK

(a) Participants on the EPWP are employed on a temporary basis.

(b) A worker may NOT be employed for longer than 24 months in any five-year cycle on an EPWP project.

(c) Employment on an EPWP project does not qualify as employment.

SL 04.03 NORMAL HOURS OF WORK

(a) An employer may not set tasks or hours of work that require a worker to work–

(i) more than forty hours in any week

(ii) on more than five days in any week; and

(iii) for more than eight hours on any day.

(b) An employer and a worker may agree that the worker will work four days per week. The worker may then work up to ten hours per day.

(c) A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks (based on a 40-hour week) allocated to him.

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

SL 04.04 MEAL BREAKS

(a) A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.

(b) An employer and worker may agree on longer meal breaks.

(c) A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.

(d) A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

SL 04.05 SPECIAL CONDITIONS FOR SECURITY GUARDS

(a) A security guard may work up to 55 hours per week and up to eleven hours per day.

(b) A security guard who works more than ten hours per day must have a meal break of at least one hour duration or two breaks of at least 30 minutes duration each.

SL 04.06 DAILY REST PERIOD

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

SL 04.07 WEEKLY REST PERIOD

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by participants during their ordinary hours of work ("emergency work").

SL 04.08 WORK ON SUNDAYS AND PUBLIC HOLIDAYS

(a) A worker may only work on a Sunday or public holiday to perform emergency or security work.

(b) Work on Sundays is paid at the ordinary rate of pay.

(c) A task-rated worker who works on a public holiday must be paid –

(i) the worker's daily task rate, if the worker works for less than four hours;

(ii) double the worker's daily task rate, if the worker works for more than four hours.

(d) A time-rated worker who works on a public holiday must be paid –

(i) the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;

(ii) double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

SL 04.09 SICK LEAVE

(a) Only participants who work four or more days per week have the right to claim sick-pay in terms of this clause.

(b) A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.

(c) A worker may accumulate a maximum of twelve days' sick leave in a year.

(d) Accumulated sick-leave may not be transferred from one contract to another contract.

(e) An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.

(f) An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.

(g) An employer must pay a worker sick pay on the worker's usual payday.

(h) Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –

(i) absent from work for more than two consecutive days; or

(ii) absent from work on more than two occasions in any eight-week period.

(i) A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.

(j) A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

SL 04.10 MATERNITY LEAVE

(a) A worker may take up to four consecutive months' unpaid maternity leave.

(b) A worker is not entitled to any payment or employment-related benefits during maternity leave.

(c) A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.

(d) A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her

child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.

(e) A worker may begin maternity leave –

(i) four weeks before the expected date of birth; or

(ii) on an earlier date –

(1) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or

(2) if agreed to between employer and worker; or

(iii) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.

(f) A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.

(g) A worker, who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the EPWP on which she was employed has ended.

SL 04.11 <u>FAMILY RESPONSIBILITY LEAVE</u>

(a) Participants who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -

(i) when the employee's child is born;

(ii) when the employee's child is sick;

(iii) in the event of the death of –

(1) the employee's spouse or life partner

(2) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling

SL 04.12 STATEMENT OF CONDITIONS

(a) An employer must give a worker a statement containing the following details at the start of employment –

(i) the employer's name and address and the name of the EPWP;

(ii) the tasks or job that the worker is to perform;

(iii) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;

(iv) the worker's rate of pay and how this is to be calculated;

(v) the training that the worker may be entitled to receive during the EPWP.

(b) An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.

(c) An employer must supply each worker with a copy of the relevant conditions of employment contained in this specification.

(d) An employer must enter into a formal contract of employment with each employee. A copy of a pro-forma is attached at the end of this specification.

SL 04.13 KEEPING RECORDS

(a) Every employer must keep a written record of at least the following –

(i) the worker's name, ID number, contact details and position;

(ii) in the case of a task-rated worker, the number of tasks completed by the worker;

(iii) in the case of a time-rated worker, the time worked by the worker;

(iv) payments made to each worker.

(b) The employer must keep this record for a period of at least three years after the completion of the EPWP project.

SL 04.14 PAYMENT

(a) A task-rated worker will only be paid for tasks that have been completed.

(b) An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer. Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.

(c) A time-rated worker will be paid at the end of each month and payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.

(d) Payment in cash or by cheque must take place –

(i) at the workplace or at a place agreed to by at least 75% of the participants; and

(ii) during the worker's working hours or within fifteen minutes of the start or finish of work;

(e) All payments must be enclosed in a sealed envelope which becomes the property of the worker.

(f) An employer must give a worker the following information in writing –

(i) the period for which payment is made;

(ii) the number of tasks completed or hours worked;

(iii) the worker's earnings;

(iv) any money deducted from the payment;

(v) the actual amount paid to the worker.

(g) If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.

(h) If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

SL 04.15 DEDUCTIONS

(a) An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.

(b) An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.

(c) An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.

(d) An employer may not require or allow a worker to –

(i) repay any payment except an overpayment previously made by the employer by mistake;

(ii) state that the worker received a greater amount of money than the employer actually paid to the worker; or

(iii) pay the employer or any other person for having been employed.

SL 04.16 HEALTH AND SAFETY

(a) Employers must take all reasonable steps to ensure that the working environment is healthy and safe and that all legal requirements regarding health and safety are strictly adhered to.

(b) A worker must:

(i) work in a way that does not endanger his/her health and safety or that of any other person;

(ii) obey any health and safety instruction;

(iii) obey all health and safety rules of the EPWP project;

(iv) use any personal protective equipment or clothing issued by the employer;

(v) report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

SL 04.17 COMPENSATION FOR INJURIES AND DISEASES

(a) It is the responsibility of employers to arrange for all persons employed on a EPWP project to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.

(b) A worker must report any work-related injury or occupational disease to their employer or manager.

(c) The employer must report the accident or disease to the Compensation Commissioner.

(d) An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

SL 04.18 TERMINATION

(a) The employer may terminate the employment of a worker provided he has a valid reason and after following existing termination procedures.

(b) A worker will not receive severance pay on termination.

(c) A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.

(d) A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

(e) A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-

engaged if a position becomes available for the balance of the 24-month period.

SL 04.19 CERTIFICATE OF SERVICE

(a) On termination of employment, a worker is entitled to a certificate stating:

(i) the worker's full name;

(ii) the name and address of the employer;

(iii) the EPWP project on which the worker worked;

(iv) the work performed by the worker;

(v) any training received by the worker as part of the EPWP project;

(vi) the period for which the worker worked on the EPWP project;

(vii) any other information agreed on by the employer and worker.

SL 05 EMPLOYER'S RESPONSIBILITIES

The employer shall adhere to the conditions of employment as stipulated in the *Code of Good Practice for Employment and Conditions of Work for Expanded Public Works Programmes*. Over and above the conditions stipulated above, he shall be responsible to:

(a) formulate and design a contract between himself/ herself and each of the recruited participants, ensuring that the contract does not contravene any of the Acts stipulated in South African Law, e.g. Basic Conditions of Employment Act, etc. (A copy of a pro-forma contract is attached at the end of this specification);

(b) screen and select suitable candidates for employment from;

(c) ensure that the recruited participants are made available to receive basic life skills training which will be conducted and paid for;

(d) ensure that all participants receive instruction on safety on site prior to them commencing with work on site;

(e) ensure that all participants are covered under workmen's compensation for as long as they are contracted to the contractor. Payment to the Compensation Commissioner shall be the responsibility of the contractor;

(f) assist in the identification and assessment of potential participants to undergo accredited advanced technical training in respective trades;

(g) test and implement strict quality control and to ensure that the health and safety regulations are adhered to;

(h) provide all participants with the necessary protective clothing as required by law for the specific trades that they are involved in.

(i) provide overall supervision and day-to-day management of participants and/or sub-contractors; and

(j) ensure that all participants are paid their wages on time through a pre-agreed payment method as stipulated in the contract with the worker.

SL 06 RECRUITMENT OF EPWP PARTICIPANTS

SL 06.01 EMPLOYMENT OF SEMI-SKILLED AND UNSKILLED LOCAL PARTICIPANTS

Employers will be contractually obliged to:

(a) employ participants from targeted social groups.

(b) facilitate on-the-job accredited training and skills development programmes for the participants;

(c) achieve the minimum employment targets;

(d) brief participants on the conditions of employment as specified in sub clause SL 04.09 above;

(e) enter into a contract with each worker, which contract will form part of the Employment Agreement;

(f) allow participants the opportunity to attend life skills training. This shall be arranged at the beginning of the contract;

(g) ensure that payments to participants are made as set out in sub clauses SL 04.14 and SL 04.15 above.

(h) set up of personal profile files as prescribed by Service Provider and as set out in sub clause SL 04.13 above.

(i) in addition to (h)
- a copy of the I.D;
- qualifications;
- career progress;
- EPWP Employment Agreement, and

- list of small trade tools;

must be included in the worker's personal profile file.

SL 06.02 PLACEMENT OF RECRUITED YOUTH PARTICIPANTS / BENEFICIARIES

Employers will be contractually obliged to:

(a) employ youth participants from targeted social groups from the priority list provided by the Service Provider/NYDA.

(b) facilitate on-the-job training and skills development programmes for the youth participants;

(c) achieve the following minimum employment targets:

(i) 100% people between the ages of 18 and 35

(d) brief youth participants on the conditions of employment as specified in sub clause SL 04.09 above;

(e) enter into a contract with each youth worker, which contract will form part of the Employment Agreement;

(f) allow youth participants the opportunity to attend life skills training. This shall be arranged at the beginning of the contract;

(g) ensure that payments to youth participants are made as set out in sub clauses SL 04.14 and SL 04.15 above.

(h) set up of personal profile files as prescribed by Service Provider and as set out in sub clause SL 04.13 above.

(i) in addition to (h)
- a copy of the I.D;
- qualifications;
- career progress;
- EPWP Employment Agreement, and
- list of small trade tools;

must be included in the youth worker's personal profile file.

SL 07 TRAINING OF PARTICIPANTS

Three types of training are applicable, namely

- Life skills;
- On the job training

- Technical Skills training.

Training will be implemented by training instructors accredited by SETA/QCTO and/or CETA :

- Participants shall be employed on the projects for an average of 6 months.
- Participants shall be deployed on projects in the vicinity of their homes. The same arrangements as for other participants regarding accommodation, subsistence and travel shall be applicable to NYS youth participants.

(a) Life skills training

All participants are entitled to undergo life skills training. Training of this module will be flexible enough to meet the needs of the employer. Training should take place immediately after site hand-over and during the period of site establishment and pre-planning before actual construction starts, alternatively this will be spread over the duration of the contract period. The contractor will be required to work closely with the NYS manager to schedule the training sessions so that the timing of the training is aligned with the contractors work schedule and his demand for participants.

(b) On-the job training

The Employer shall provide participants with on-the-job training to enable them to fulfil their employment requirements. The employer shall also be expected to closely monitor the job performance of youth participants and shall identify potential youth participants for skills development programmes.

(c) Technical skills training/Assessment

The Employer shall assist in identifying youth participants for further training. These youth participants will undergo further technical training to prepare them for opportunities as semi-skilled labourers.

- The contractor shall liaise with the NYS Manager:

Mr Veli Jiyane
EPWP / NYS
Tel: (031) 314 7273
Mobile: 082 9573660
Email: Velile.jiyane@dpw.gov.za

SL 08 PARTICIPANT SELECTION CRITERIA

SL 08.01 PREAMBLE

The *Code of Good Practise for Employment and Conditions of Work for Expanded Public Works Programmes* encourages:

- optimal use of locally-based labour in an Expanded Public Works Programme (EPWP);
- a focus on targeted groups which consist of namely youth, consisting of women, female-headed households, disabled and households coping with HIV/AIDS; and
- The empowerment of individuals and communities engaged in an EPWP through the provision of training.

SL 08.02 PARTICIPANTS SELECTION CRITERIA

(a) The selection of participants must be done through the Project Steering Committee (PSC)

(b) The participants of the programmes should preferably be non-working individuals from the most vulnerable sections of disadvantaged communities who do not receive any social security pension income/child grant. The local community must, through all structures available, be informed of and consulted about the establishment of EPWP components in the project.

(c) In order to spread the benefit as broadly as possible in the community, a maximum of one person per household should be employed, taking local circumstances into account. The use of EPWP Recruitment guideline is very critical to ensure fair and transparent selection. In some cases where applicable it is important to consider the list of vulnerable wards within the municipal area.

(d) Skilled artisans from other areas may be employed if they have skills that are required for a project and there are not enough persons in the local communities who have those skills or who could undergo appropriate skills

training. However, this should not result in more than 20% of persons working on a programme not being from local communities.

(e) Programmes should set participation targets for employment with respect to youth, single male- and female-headed households, women, people with disabilities, households coping with HIV/AIDS, people who have never worked, and those in long-term unemployment.

(e) The proposed targets as set out in sub clause SL 06 (c)

- Youth from 18 to 35 years of age, at least 60% females and 2% disabled.
- **The project of this magnitude should create at least not less than 150 work opportunities excluding NYS participants**

SL 08.03 PROJECT STEERING COMMITTEE (PSC)

The PSC shall consist of the following stakeholders

- Department of National Public Works representative
- Community representatives
- Ward Councillor
- Client department representative
- Main Contractor

SL 08.03.01 Operating Procedures

The PSC shall oversee the following

(a) The PSC will adhere to government legislation and policy guidelines which are relevant to enable it to execute its work. The Intermediary guidelines will also be adhered to e.g. procurement policies
(b) The meetings will be scheduled, and will be held on agreed dates and times.
(c) That targets set in terms of work opportunities are met
(d) That local labour is recruited according to agreed procedures and processes in line with the EPWP recruitment guideline
(e) Manage EPWP participants grievances
(f) Responsible for communication with local EPWP participants

SL 08.03.02 Secretariat

The contractor shall appoint a Community Liaison Officer (CLO) who shall provide secretariat support to the PSC.

SL 08.03.03 PSC Meetings

The PSC shall meet once a month prior to the site meetings and report the resolutions at the Site Meeting.

SL 08.03.04 Funding of PSC

The activities of the PSC will be voluntary and members would receive no remuneration for their time. The contractor may provide refreshments on the day of a meeting. It is thus important that community members of the PSC be drawn from the local area in order to avoid travelling costs and other dynamics.

SL 09 CONTRACTUAL OBLIGATIONS IN RELATION TO LABOUR

The participants to be employed in the programme (EPWP) shall be directly contracted to the employer. Over and above the construction and project management responsibilities, the employer will be expected to perform the tasks and responsibilities as set out in clause SL 05 above.

SL 10 PROVINCIAL RATES OF PAY

SL 10.01 PAYMENT FOR OF SEMI-SKILLED AND UNSKILLED PARTICIPANTS

(g) The Employer must pay participants the EPWP going rate which must not be below the minimum rate as stipulated in the Ministerial Determination: Expanded Public Works Programme. A worker may not be paid less than the minimum EPWP wage rate per day or per task. This will be annually adjusted in-line with inflation. It is recommended that the rate must be the local going rate.

(b) Participants can be paid on the basis of the number of tasks completed or on a daily rate/"time-rated participants

(c) If participants are informed a day before that work will not take place the next day, they should not be entitled to any payment.

(d) Participants will be paid a training allowance in case they are required to attend agreed training programmes (equal to 100% of the daily task rate for task-rate participants or 100% of the daily rate of pay for time-rated participants. All the costs of training will be covered, for example, travel, trainers, material, tuition fees.

(e) An employer must pay all wages at least monthly in cash or by cheque or into a bank account.

(f) A task-rated worker will only be paid for tasks that have been completed.

(g) The employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.

(h) Where a worker participates in a learner ship the relevant learner ship determination must be used to determine the training allowance whilst on training.

(i) Each worker must be given written particulars of employment and verbal explanations in an appropriate language of their rate of pay and how this is to be calculated.

(j) Where a project is completed earlier than anticipated the worker should receive the full agreed remuneration for the stipulated period of the contract if the pay for the task was to be calculated on the basis of time. Where such work was to be performed on a task-based system, the full agreed remuneration for the task should be paid for early completion.

(k) Should participants be attending training whilst employed by the contractor, the contractor will still be responsible for payment to the participants / beneficiaries whilst at training.

SL 10.02 **PAYMENT FOR OF YOUTH PARTICIPANTS (NYS)**

It is stipulated that youth participants on the EPWP-NYS receive a minimum of R 2 684.00 per month whilst working and R 660 per month whilst on training for the project. Should youth participants be attending training whilst employed by the contractor, the contractor will still be responsible for payment to the youth worker whilst at training.

SL 11 **MEASUREMENTS AND PAYMENT**

The participants specified for this contract will receive at least life skills training and technical training.

SL 11.04 **EMPLOYMENT OF YOUTH PARTICIPANTS**

The unit of measurement shall be the number of participants at the statutory labour rates of **R2 684,00** multiplied by the period employed in months and the rate tendered shall include full compensation for all costs associated with the employment of participants and for complying with the conditions of contract. The cost for the training shall be excluded from this item. This item is based on 6 months minimum appointment for participants.

SL 11.05 **PROVISION OF EPWP DESIGNED PPE TO PARTICIPANTS**

SL 11.05.01 a) Supply EPWP designed overalls to participants.
Worker overalls should be orange (top and bottom) as per EPWP Corporate Image (Annexure A.) specification with the exception of Correctional Services contracts where the participants top would be blue and the bottom orange.

b) Safety Helmet
c) Safety Shoes
d) Goggles
e) Gloves
f) Any other PPE necessary for the safe execution of the project

An amount has been provided in the Schedule of Quantities under sub item SL 10.05.01 for the supply of EPWP designed overalls, as per the specification provided by the EPWP unit, arranged by the Service Provider. The Engineer will have sole authority to spend the amounts or part thereof. The tendered

percentage under sub items SL 10.05.02 will be paid to the contractor on the value of each payment pertaining to the supply of overalls to cover his expenses in this regard.

SL 11.06 **PROVISION OF SMALL TOOLS FOR YOUTH PARTICIPANTS**

SL 11.06.01 The Contractor must provide all participants with prescribed tools for their respective trades. These tools will become the property of the worker after the completion of the programme. Allow for R1 800.00 per youth worker for this purpose.

The following trades we will choose under:

1) Bricklaying
2) Plastering
3) Painting
4) Electrical assistance
5) Tiling
6) Carpentry
7) Paving
..... 8) Plumbing
.....9) Aluminium works

The Training Service Provider is to advise on the tools required for each of the trades that the youth participants are trained on.

SL 11.07 **APPOINTMENT OF TEAM LEADER/S (CLO/PLO)**

SL 11.07.01 Appointment of 1 team leader/s is necessary for the duration of the contract. The Team Leader will act as CLO/PLO to facilitate the project work between the participants and the contractor.

The Team Leader should be a person with technical experience on the trades performed on site, not necessarily trade-tested.

SL 11.08 **LIAISON WITH SERVICE PROVIDER**

The tendered rate shall include full compensation for the cost of liaising with the Service Provider and Social Facilitators on all issues regarding the works.

SL 11.09 **REPORTING REQUIREMENTS**

The Project must be registered on the NDPW EPWP registering platform by the Project Manager. The contractor is required to submit monthly participants reports (Annexure B), which are to be attached to payment certificates and invoices as per attached forms (EPWP Reporting Templates). Payment shall only be processed once compliance with EPWP and other Reporting requirements has been proven.

SL 11.10 **SUBCONTRACTING**

SL 11.10.01 The contractor will be required to appoint emerging sub-contractors between CIDB grading of level 3 and 5 (GB/PE) and must indicate the % value of work to be undertaken by sub-contractors, as a contribution towards achieving the economic objectives. In this case the 30% of the project value in terms of the participation goal must be achieved. Should there be insufficient pool of contractor or poor response, CIDB grade 1 and 2 can also be considered.

SL 11.10.02 The Contractor will be responsible for managing local emerging sub-contractors undertaking Labour Intensive work.

SL 11.10.03 The Contractor will be responsible to ensure that all sub-contractors comply with all EPWP requirements as set-out in this specification

SL 11.10.04 The Contractor and sub-contractors will be required to compile monthly progress reports to be submitted with payment certificates. The reports shall include planned targets with regards to the works, employment of EPWP participants and project expenditure. Failure to produce monthly reports will render payment certificates incomplete.

EPWP - EMPLOYMENT AGREEMENT

[Example]

CONTRACTOR

Name:

Address:

ID:

AND

WORKER

Name:

Address:

ID:

1. I am pleased to confirm that you have been appointed to work on a task-based employment contract within an EPWP project. During this contract you will undertake various tasks.

2. This contract must be in conjunction with the standard terms and conditions of employment applicable to a EPWP, a copy of which is attached.

3. The project where you will be employed is located at .....

4. The contract will start on ..... and end on.....

5. You must be aware that this contract is a limited term contract and not a permanent job. Your minimum period will be 6 months and the contract may be terminated for one of the following reasons:
   (a) Funding for the programme in your areas comes to an end.
   (b) You repeatedly do not perform in terms of the tasks set out in your work programme.

(c) If you breach any of the terms and conditions of this contract.

6. Disciplinary:
   You will be employed as a general labourer within the EPWP team.

7. While you are working you will report to
   .....

8. Payment
   You will be paid a fixed amount of R ..... for a .....basis.

9. The contractor shall not be required to provide to local participants:
   - holiday, leave, sick or severance pay;
   - a pension or similar scheme;
   - a medical aid or similar scheme.

10. Signatures

Signed on this day ..... of ..... 20.....

Contractor: ..... Date:
.....

Worker: ..... Date:
.....

Witness: ..... Date:
.....

EPWP - NYS EMPLOYMENT AGREEMENT
[Example]

CONTRACTOR
Name:
Address:
ID:

AND

YOUTH WORKER
Name:
Address:
ID:

11. I am pleased to confirm that you have been appointed to work on a task-based employment contract within an EPWP - NYS project. During this contract you will undertake various tasks.

12. This contract must be in conjunction with the standard terms and conditions of employment applicable to a EPWP, a copy of which is attached.

13. The project where you will be employed is located at .....

14. The contract will start on .....
and end on.....

15. You must be aware that this contract is a limited term contract and not a permanent job. Your minimum period will be 6 months and the contract may be terminated for one of the following reasons:
    (d) Funding for the programme in your areas comes to an end.

(e) You repeatedly do not perform in terms of the tasks set out in your work programme.

(f) If you breach any of the terms and conditions of this contract.

16. Disciplinary:

You will be employed as a general labourer within the EPWP – NYS team.

17. While you are working you will report to .....

18. Payment

You will be paid a fixed amount of R ..... for a .....basis.

19. The contractor shall not be required to provide to local participants:

- holiday, leave, sick or severance pay;
- a pension or similar scheme;
- a medical aid or similar scheme.

20. Signatures

Signed on this day ..... of ..... 20.....

Contractor: ..... Date:
.....

Youth Worker: ..... Date:
.....

Witness: ..... Date:
.....

The EPWP identity construction

The logo spacing guide is used to check relationship of the Public Works Logo and Expanded Public Works Programme logo.

HORIZONTAL RELATIONSHIP

In the horizontal relationship the DPW logo always appears on the left and EPWP logo on right.
* NOTE The space between the public works logo and EPWP logo may increase but never decrease less than X width. The logos must always bottom align with Y axis.

The EPWP identity - Acceptable colour application

The EPWP identity - Typography

The fonts chosen for the EPWP identity is Gill Sans and Arial. The following versions of the Gill Sans and Arial family can be used.

Primary descriptor: Gill Sans Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 *&!?@

Primary descriptor: Gill Sans Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 *&!?@

Secondary typography: Arial Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 *&!?@

Secondary descriptor (EPWP): Arial Narrow

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 *&!?@

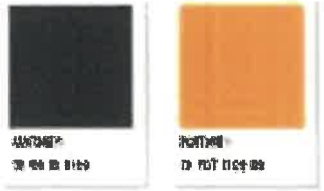
Secondary typography: Arial Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 *&!?@

The EPWP identity - Colour palette

The Primary colour palette for the EPWP identity is Black and Yellow. The Secondary colour palette appear in the logo and is an integral part of the EPWP identity.

PRIMARY COLOUR PALETTE



SECONDARY COLOUR PALETTE


public works

The EPWP co-branding in promotional material

The Expanded Public Works Programme corporate identity is likely to be applied in conjunction with many other role players. When using the horizontal version of the EPWP identity the following scenarios applies.

National branding scenario

The EPWP master brand logo is applied to the front, with the sector indicated on the back. The project identity is always applied to the left sleeve.

Master Brand logo version

public works


Department of Roads and
Public Works
Province of the Eastern Cape
PROJECT DESCRIPTION
Upgrading of internal
streets to surfaced standard
Mdantsane Zone 15 - EPWP 1
LUKHOZI
Lukhozi
Consulting Engineers (Pty) Ltd
Contractor: Roberts Bros
Project name INFRASTRUCTURE
public works
REPUBLIC OF SOUTH AFRICA
EXPANDED PUBLIC WORKS PROGRAMME

ANNEXURE B.1 – EPWP BENEFICIARY REPORTING TEMPLATE

BENEFICIARY INFORMATION
PLEASE PROVIDE BENEFICIARY INFORMATION ON THIS SHEET

									JULY			
First name	Initials	Last name	I.D. Number	DOB	Gender	Has disability	Education level	Start date	Number of labour days for July	Daily task rate for July	Total wages paid July	Total number of training days July
				dd/mm/yyyy	M or F	Y or N	See codes at bottom of list	dd/mm/yyyy			DO NOT ENTER DATA IN THIS COLUMN	
TOTALS (DO NOT ENTER DATA IN THIS LINE)									0			0

- Education Levels – use the codes (1,2,3) on the excel spreadsheet
  - (1) Unknown
  - (2) No Schooling
  - (3) Grade 1-3 (Sub A – Std 1)
  - (4) Grad 4 (Std 2) ABET 1
  - (5) Grade 5-6 (Std 3-4) ABET 2
  - (6) Grade 7-8 (Std 5-6) ABET 3

ANNEXURE B.2 – EPWP PROGRESS DATA REPORT TEMPLATE

PROGRESS REPORT DATA

	2011					
	TOTAL up to JULY	**AUGUST**	**SEPTEMBER**	**OCTOBER**	**NOVEMBER**	**DECEMBER**
Financial Report						
Expenditure (Total monthly for Project)						
EPWP Certified Contractors						
Number of contractors						
Amount Spent (by Contractor)						
SMME Contractors						
Number of contractors						
Amount Spent						

Milestones	If milestone has been achieved provide the achievement date, otherwise indicate "NO" for each milestone not achieved.
Project approved	
Consultant appointed	
Detailed Design specifications approved	
Tender report approved	
Construction started	
Implementation complete	
Actual Outputs	
Type of output	
Quantity achieved	
Date achieved	

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS

BILLS OF QUANTITIES

FOR

VULAMEHLO MAGISTRATES COURT: REPAIRS AND RENOVATIONS OF THE OFFICE BUILDING COMPLETION CONTRACT

TENDER NO.: 26/02/01

PART C4: SITE INFORMATION

QUANTITY SURVEYOR:

EDGECOMBE & HAYES-HILL
Suite 702, Ridge 7, 27 Vuna Close
Umhlanga Ridge
4321

TEL: 031 566 2977

EMAIL: ian@ehhqs.co.za

ARCHITECT:

DESIGNSCAPE ARCHITECTS
Suite 3, Rydall Vale Office Park
La Lucia
4019

TEL : 031 566 2977

EMAIL: bongani@dscape.co.za

STRUCTURAL ENGINEERS:

EYETHU
8th Floor, Musgrave Road, Berea
Durban
4001

TEL: 031 303 7630
EMAIL: lindaz@eyethu.co.za.co.za

CIVIL CONSULTING ENGINEERS:

MADAN SINGH & ASSOCIATES
36 Westdale Crescent, Reservoir Hills
Durban
4091

TEL: 031 262 6950
EMAIL: manoj@msaengineers.co.za

ELECTRICAL ENGINEERS:

DEPARTMENT OF PUBLIC WORKS
DURBAN REGIONAL OFFICE
Private Bag X54315
Durban
4000

TEL: 031 314 7105
EMAIL: msizi.mncibi@dpw.gov.za

MECHANICAL ENGINEERS:

DEPARTMENT OF PUBLIC WORKS
DURBAN REGIONAL OFFICE
Private Bag X54315
Durban
4000

TEL: 031 314 7105
EMAIL: msizi.mncibi@dpw.gov.za

DEPARTMENT OF PUBLIC WORKS
DURBAN REGIONAL OFFICE
Private Bag X54315
Durban
4000
TEL: 031 314 7105
EMAIL: msizi.mncibi@dpw.gov.za

FEBRUARY 2026

public works
Department:
Public Works
REPUBLIC OF SOUTH AFRICA

PG-03.2 (EC) SITE INFORMATION – JBCC 2000 PRINCIPAL BUILDING AGREEMENT (edition 6.2 of March 2018)

Project title:	**VULAMEHLO MAGISTRATE COURT: REPAIRS AND RENOVATIONS OF THE OFFICE BUILDING: COMPLETION CONTRACT**		
Tender no:	***DBN26/02/01***	**Reference no:**	**6308/0658/26/1B**

C4 Site Information

1. GENERAL

(a) The Standard for Uniformity in Construction Procurement published in terms of the Construction Industry Development Board (CIDB) Act, 2000 (Act no. 38 of 2000), the Standardized Construction Procurement Documents for Engineering and Construction Works as issued by the CIDB and any other relevant documentation pertaining thereto must be studied and all principles in this regard must be applied to all procurement documentation, practices and procedures.

2. SITE DESCRIPTION (Clause 42.2.2 [1.1]

Vulamehlo Magistrates Court, being Portion 9 of Lot 4670, Indududu A, 21483 Main Street Dududu, Scottburgh, KZN