



VEGETATION CONTROL IN YARDS

TECHNICAL CONTRACT SPECIFICATIONS

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1 SCOPE OF WORK

- 1.1 This contract covers the control of vegetation in mainly yards including listed invasive plants, by means of herbicide on Transnet property, to the extent that areas treated chemically or otherwise in terms of this Contract are rendered and maintained free from obstructing vegetation as defined for the periods specified herein.
- 1.2 The essence of the Contract is that Transnet Freight Rail requires the control of living vegetation and the management of dead remains of previously living vegetation, to the extent that areas treated in terms of the Contract are free from any form of vegetation (dead or otherwise) which may obstruct, hinder or interfere with operational activities, or have the potential to damage equipment or facilities, on tracks or other areas included in the Contract.
- 1.3 The ways and means by which the above-mentioned results are obtained are the responsibility of the Supplier. Transnet Freight Rail, however, shall have the right to monitor the materials and activities of the Contractor to ascertain that all procedures and herbicidal applications are in **accordance with his/her contract documents, the relevant legislation and are conducive to the achievement of long-term control of vegetation**. Such right of monitoring shall be entirely without prejudice to Transnet Freight Rail and shall in no way relieve the Contractor of his/her responsibility for satisfactory control of vegetation.
- 1.4 Failure to comply with the minimum performance proposed by the Contractor in his/her contract may form the basis for non-payment for work done, pending the achievement of control as defined and/or termination or cancellation of the Contract.
- 1.5 The Contractor must obtain his/her own information regarding the extent, occurrence and the species of the vegetation over the work area and must also determine the best method to control the vegetation.
- 1.6 The performance due by the Contractor shall include any work arising from or incidental to the above or required of the Contractor for the proper completion of the Contract in accordance with the true meaning and intent of the Contract documents.

2 SUFFICIENCY OF CONTRACTOR

- 2.1 The Contractor is required to have experience in the application of herbicides in Southern Africa as stipulated in terms of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, Act 36 of 1947.

3 DURATION OF CONTRACT

- 3.1 The work provides for the control of vegetation in mainly yards for commencement on the date of notification of acceptance of Contract with Transnet Freight Rail for **24 months**. The start and completion date of the Contract must be aligned with the start of the annual rainy season for the areas as specified in the schedule of quantities.

4 PERFORMANCE BOND

- 4.1 Transnet Freight Rail requires a Performance Bond of 5% of the total value of the Contract as security for the due and faithful performance by the Contractor of all the duties and obligations resting upon and assumed by him in terms of the Contract.

The Performance Bond is to be returned to the Contractor upon completion of the Contract after certification from the Project Manager that all Contract requirements have been met

5 LOCATION OF THE WORKS

- 5.1 The location of the works is as indicated in the Schedule of Quantities in the geographical area controlled by the Depot Engineering/ Manager for (Witbank Depot).
- 5.2 Transnet Freight Rail's representative will provide one-copy schematic diagrams to the contractor, indicating the areas to be treated.

6 TO PROVIDED BY TRANSNET FREIGHT RAIL

- 6.1 The following material, equipment and services will be provided free of charge by Transnet Freight Rail where required:
 - 6.1.1 Water as required from Transnet Freight Rail's existing points of supply; such water may be untreated, chemically treated or borehole water. The Contractor shall be responsible for all work and equipment needed to fill the water trucks or spray units from the water point provided and to ensure that the water is suitable for its intended use. These water points may be up to 200km apart.
 - 6.1.2 Road vehicle accessibility via service roads to the work site **is not always possible**.
 - 6.1.3 Inspections of the areas of work by motor trolley may be arranged with the Project Manager's Deputy, but will have to coincide with normal track inspections carried out by the inspection /technical staff of the Depot. The Project Manager's Deputy shall be given timeous notice (4 calendar weeks) of the Contractor's intention to inspect.
- 6.2 Plant and Material
 - 6.2.1 Any plant and/or equipment provided to the Contractor at the beginning of the Contract shall be returned to Transnet Freight Rail in the same condition, normal wear and tear accepted. Any loss or damage shall be made good by the Contractor, or the value thereof will be deducted from moneys falling due to him/her.
 - 6.2.2 The Contractor shall provide written certification of compliance with specification of any materials (chemical) or equipment supplied by him / her.

7 TO BE PROVIDED BY THE CONTRACTOR

- 7.1 In addition to all labour materials, plant, equipment and incidentals needed to complete the work, the Contractor shall provide all accommodation and toilet facilities for his/her employees.
- 7.2 The Contractor shall provide safe and secure storage facilities for all herbicides brought onto and in use on the site. Such facilities shall be capable of ensuring that unauthorised persons or animals cannot gain access to such herbicide.
- 7.3 The Contractor shall provide at his/her own cost any security measures he/she may deem necessary for safe and effective execution of the work within the Contract area.
- 7.4 The personnel of the Contractor shall at all times, while on Transnet Freight Rail property and during vegetation control operations, wear reflective safety jackets. These jackets must either be yellow or light blue or preferably bear the name of the Contractor's company. Should the

Contractor wish to use another colour this must first be cleared with the Project Manager's.

- 7.5 An effective safety procedure to be followed by all personnel on any Transnet Freight Rail work site shall be compiled by the Contractor and implemented before any work commences. The procedure shall be updated whenever the need arises and any changes shall be communicated to all employees on a work site before work proceeds.
- 7.6 When required the Contractor shall appoint at each work site sufficient personnel whose sole task shall be to be on the lookout for approaching rail traffic. These employees shall operate an audible warning device to timeously warn all people on the work site of approaching rail traffic.
- 7.7 An effective safety procedure to be followed by all personnel on any work site in the case of approaching rail traffic shall be compiled by the Contractor and implemented before any work commences. The procedure shall be updated whenever the need arises and any changes shall be communicated to all employees on a work site before work proceeds.
- 7.8 The Contractor shall make available employees to be trained, certificated and used as Lookouts when required. The training shall be done at no charge to the Contractor.

8 EXISTING SERVICES

- 8.1 Reinstatement of services and property damaged during execution of the work.
- 8.2 Any damages caused by the Contractor to Transnet property and services shall be rectified by the Contractor at his own cost and to the full satisfaction of the Transnet Freight Rail's representative.

9 MANAGEMENT OF THE WORKS

9.1 SITE MEETINGS

The Contractor shall attend site meetings when required. These meetings will be held under the chairmanship of Transnet's representative. These meetings will be conducted to monitor progress and discuss agreed issues when required. A register will be kept of attendance and a minute of the proceedings will be recorded and distributed afterwards.

9.2 SITE BOOKS

- 9.2.1 A Site Instruction Book, A4 size, with triplicate pages shall be provided by the Contractor. The format for written communication on site shall be the Site Instruction Book. The site instruction shall have numbered sheet for receiving and recording instructions by the Employer's representative and shall be clearly marked "Site Instruction Book".
- 9.2.2 A Daily Diary Book with triplicate pages shall be provided by the Contractor and be available on site at all times. The number of staff and plant on site for every day shall be recorded. The hours of actual work and the accurate amount of work measured per item as in the Schedule of Quantities completed for each day shall also be recorded and signed off by both Transnet Freight Rail (TFR) and the Contractor at the end of each day. This site diary shall also serve as a daily record of all relevant information concerning herbicide application and site conditions prevailing on site and as required in terms of section 16 of Act 36 of 1947.
- 9.2.3 Only persons authorised in writing by the Project Manager or Contractor may make entries in the site books.

9.3 PROGRAMME OF WORK

- 9.3.1 The Contractor shall undertake the detailed planning and programming of the entire vegetation control operation and shall submit this with the accepted scope of work. The programme shall be aligned with the commencement of the annual rainy season.

The Contractor's programme shall allow for the initial application of herbicides to coincide with the rainy season, for achieving maximum success. The programme shall be completed in the shortest possible time but not later than 8 weeks after commencement of the initial application

In addition to the annual programme provided the Contractor shall submit daily working programmes to the Project Manager's Deputy, 7 days in advance of the next working week, indicating the specific areas where the Contractor will be working each day of the week. Failure by the Contractor to submit a daily programme and/or deviating from it without notifying the Project Manager's Deputy, preventing him/her from monitoring the Contractor's performance, may result in payment for such work being withheld.

The contractor should indicate if they intend to work on Saturdays, Sundays or statutory holidays or is prepared to work on such days if required to do so by Transnet Freight Rail.

- 9.3.2 The Contractor shall within 2 weeks from the date of notification by Transnet Freight Rail of the acceptance of his/her contract or the commencement of the annual rainy season as the case may be start with the initial treatment as submitted with the contract document.

9.3.3 Returnable documents to be submitted at the time of tendering

The items listed below will form part of the evaluation criteria for this project

- 9.3.3.2 A valid Pest Control Operator registration certificate for industrial weed control in terms of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, Act 36 of 1947, this certificate is a compulsory requirement for this project.

- 9.3.3.3 A program of work in a gantt chart format as per the schedule of quantities with a completion time of not more than 8 (eight weeks). The work program should indicate the number of days/weeks the work will be executed incorporating the extent and amount of work as in the schedule of quantities, work area measures (hectares/worklots) and the work location to be inclusive of the work program.

- 9.3.3.4 A schedule of the plant and equipment dedicated to this project with a minimum requirement of the following items but not limited to:

- 14 brush cutters (7 per team)
- 14 knapsack sprayers (7 per team)
- 1000 litre water tanker x2 (1 per team)

A list of registered herbicides/chemicals registered for the intended use which will be used in the work, supported by Product label, specimen labels and material safety data sheets, indicating:

- Trade name

- Generic name
- Registration Number
- Ingredients (type and content) as shown on the label
- Application rates

The listed herbicide/s must consist of components capable of achieving control as follows:

- pre-emerged weed control /residual effect
- Post-emerged weed control
- The chemical should be systemic
- Non selective weed control

A list of a combination of compatible herbicide providing control as mentioned above &/or one multipurpose product will be accepted.

The product or combination of products should cater for all weed types namely: hardy wood, grass plants, broad leaf and succulent plant species for both perennial and annual growth.

A minimum of 2 (two) years referenced proof of experience for industrial weed control not limited to the railway environment, the experience can be in a form of completed projects (with the duration of contract) in the field of industrial weed control. The reference should have contact information either in a form of email & or telephonic contact .

9.3.3.5 The methods and procedures to be implemented in the handling of herbicides pertaining to health and safety, quality control, protection of third parties and security,

9.3.3.6 The provision of a minimum of an operational team of 20 employees but not limited to (10 employees per team) inclusive of 2 Pest Control Operators (1 PCO per team) to carry out the works on site indicating function of each personnel in the team.

9.3.3.7 The following safety requirements:

- The companies Safety Health and Environmental policy (SHEQ policy),
- A Safety Health and Environmental Plan (SHE Plan)
- A risk assessment in relation to this project

The following documents will form part of the safety file. These documents will be requested from the successful bidder

- A health and safety file consisting of but not restricted to and inclusive of the safety documents requested when tendering:
- Safety Plan in accordance with the Construction Regulations, 2003 (refer to the E4E (August Transnet 2006)
- Fall protection plan - (where applicable)
- A complete H&S plan
- WSWP AND JOB OBSERVATIONS
- Specific safe working procedures for all safety critical tasks.
- APPOINTMENTS
- Trained and certified first aiders for the above works
- SHE Rep's for the above works.

- Documented Health and Safety organigram (including sub-contractors where applicable)

CERTIFICATES

- Site access certificate (Annexure 4 of E4E) to be provided by Transnet
- Machine operator's valid competency certificates.
- Copies of medical surveillance records for personnel on this work site

AUDITS AND INSPECTIONS

- Record of site inspections.
- Applicable Checklist completed e.g. ladders, scaffolding, etc.
- Documented emergency procedures
- Reports on condition of plant /equipment (in site diary)

TRAINING

- Copies of Certificates of other training (E.g. Flagmen, technical training etc.)?

GENERAL

- Notice of construction work to Dept. of Labour (where applicable)
- Notices served by Dept. of Labour
- Environmental Plan
- Work programme
- Method and detail of process including but not restricted to –
- List of registered herbicides to be used in the work, supported by full specimen labels indicating trade name, generic name, registration number, ingredients (type and content) and application rates
- Application rates of herbicides to be applied by the Supplier
- Product mixtures and design mixture
- Detail and function of personnel to carry out operation
- List of support resources to carry out operation
- Proposed Amendments and Qualifications
- Proposed Organization and Staffing structure including quantity of personnel to be trained in aspects of safety.

9.4 PERFORMANCE MONITORING INSPECTIONS

- 9.4.1 The Contractor shall at all times be responsible for supervision of the work and for follow-up inspections to monitor the successful control achieved over areas of completed application. He/she shall immediately take appropriate remedial action in areas where the specified standards of control are not achieved.
- 9.4.2 The Project Manager's Deputy shall at any time during the application periods carry out inspections of the Contractor's performance methods and procedures. He/she may at any time take samples of the herbicide applied and arrange for the testing thereof. Where test-samples fail to conform to the specifications the costs of testing will be recovered from the Contractor and he/she may be ordered by the Project Manager's Deputy to re-treat entire worklots or sections where such herbicide were applied.
- 9.4.3 The Project Manager's Deputy will carry out **3** official inspections for the entire duration of the contract namely, **two** inspections in each season (as per clause 9.3.1 and 12.4) of the works. For the purpose of measuring progress and evaluating whether control, as defined, has been achieved. The inspections shall be performed visually and the Contractor shall be present or forfeit his/her right to dispute the measurements and evaluation of the Project Manager's Deputy.
- 9.4.4 The first inspection will take place after the completion of the entire initial works of the **1st**

season (as per clause 9.3.1, **Error! Reference source not found.** and 12.4). Periodic visits from the Project Manager's Deputy will occur with the aim of evaluating work done during the initial Spraying and cutting programme. With each visit the site diaries will be signed by the Project Manager's Deputy and the Contractor's Supervisor on site.

9.4.5 The second inspection shall be done at 4 months after the start date of the contract and after the Contractor has notified the Project Manager's Deputy that control as specified has been achieved or clear signs are evident that control is in the process of being achieved.

9.4.6 The third inspection shall be done at, or within 8 months after the start date of the contract and after the Contractor has notified the Project Manager's Deputy that control as specified has been achieved.

The rejection by the Project Manager's Deputy of work performance may be contested by the Contractor only at the time and place of rejection.

The rejection of a worklot at a particular inspection shall remain final for that inspection for payment purposes, notwithstanding the fact that the Contractor may execute further remedial work in order to achieve control at further and final inspections.

9.4.7 In the case where the Project Manager's Deputy and the Contractor fail to agree on whether a worklot has failed, the worklot shall be recorded as a "disputed worklot" and the Contractor shall prepare an appropriate record of all disputed worklots in order that such disputes may be resolved by way of the disputes resolution procedures.

10 PRICING INSTRUCTIONS

10.1 GENERAL

10.1.1 The prices and rates must cover all costs and expenses that may be required for the execution of the works.

10.1.2 The quantities set out in the Schedule of Quantities are estimated and may be more or less than stated. The Contractor shall submit a complete and detailed priced Schedule of Quantities (prepared in black ink) for the Works.

10.1.3 Each item shall be priced by the Contractor. If the Contractor has omitted to price any items in the Schedule of Quantities, the items takes responsibility of the omitted work.

10.1.4 Payment for this Contract shall be based on the Schedule of Quantities and the payment will be made in accordance with the rates submitted in the Schedule of Quantities.

The absence of stated quantities in the Schedule of Quantities is no guarantee that none will be required. Reasonable prices should therefore be inserted for every item as these prices.

The short descriptions of the items in the Schedule of Quantities are for identification purposes only.

Items classified as "provisional worklots" in the Schedule of Quantities indicate that there is no certainty about the amount of work, which will be required. In this Contract the provisional items, where applicable, are for the treatment of areas, which are not necessarily treated annually.' These areas will be measured per provisional worklot as defined in clause **Error! Reference source not found.** and stated in the Schedule of Quantities. The standard of

control for individual worklots shall apply.

10.2 PAYMENT

- 10.2.1 Payment will be based on the numbers of worklots treated as instructed by the Project Manager's Deputy and to which the Contractor successfully applied the vegetation control measures and has achieved the standard of control.
- 10.2.2 No payment will be made for rejected worklots where control achieved does not meet the standards of control specified.
- 10.2.3 Measurement and payment for the work completed will be made in 3 stages.
- 10.2.3.1 After completion of the initial spraying and cutting of the entire contract area the Project Manager's Deputy and the Contractor will determine the work completed (number of worklots sprayed and cut). The Contractor will thereafter receive payment at 40% of the rates provided for all of the completed work. This will be conducted in accordance with Clause 9.4.4 the 1st official inspection.
- 10.2.4 The 2nd payment will be conducted in accordance with Clause 9.4.5 concurrent with the 2nd official inspection. The Contractor will thereafter receive payment at 30% of the rates provided for all worklots where control as specified has been achieved or clear signs are evident that control or is in the process of being achieved.
- 10.2.5 The 3rd payment will be conducted in accordance with Clause 9.4.6 concurrent with the 3rd official inspection. The Contractor will thereafter receive payment at 30% of the rates provided for all worklots where the required standard of control has been achieved.

11 ENVIRONMENTAL REQUIREMENTS

- 11.1 The Contractor's procedures for the procurement, storage, handling, transportation, application and general use of herbicide shall comply with all applicable legislation, Codes of Practice and Local, Regional or Provincial Authorities, including but not restricted to:
- a) The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act 36 of 1947) as amended.
 - b) The Hazardous Substance Act (Act 15 of 1973) as amended.
 - c) The Water Act (Act 54 of 1956) and the Water Amendment Act (Act 96 of 1984) (where applicable).
 - d) The National Environmental Management Act (Act 107 of 1998).
 - e) The National Environmental Management Biodiversity act (Act 10 of 2004).
 - f) SABS Code of Practice No. 0206-1985 "Safety procedures for the disposal of surplus Pesticide and associated toxic waste".
 - g) Conservation of Agricultural resources Act (Act 43 of 1983) as amended.
 - h) Common law of nuisance.
 - i) Mountain Catchment Area Act (Act 63 of 1970).
 - j) The National Veld and Forest Fire Act (Act 101 of 1989)
 - k) National Forest Act, act no. 84 of 1998.
 - l) National Environmental Management: Waste Act, Act no. 59 of 2008.
- 11.2 The Contractor's authorised representative on site shall be a **registered Pest Control Operator**, specialising in the field of **industrial weed control** and registered in terms of the Farm Feeds Agricultural and Stock Remedies Act, Act 36 of 1947 as amended. A registered Pest Control

Operator shall be in direct control of work taking place on site.

In the event of work taking place on numerous sites at the same time, the Contractor must ensure that there is a registered Pest Control Operator on each site.

If a different Pest Control Operator from the one provided in the tender document is allocated to a specific team the Project Manager's deputy must be notified in writing together with a copy of a valid Pest control Operator certificate.

11.3 Certified copies of valid Pest Control Operators registration certificates of the supervisory staff that **are accountable for the works in this Contract**. The name of the Pest Control Operator must be linked in the staffing structure to a specific team responsible for spraying and cutting.

11.4 A comprehensive Environmental Management plan including but not restricted to proof of reasonable measures to minimise impacts on the environment.

11.5 DAMAGE TO FAUNA AND FLORA

11.5.1 The Contractor shall ensure that his/her employees at all times exercise care and consideration for the fauna and flora within and adjacent to the area to be sprayed and Cutted.

11.5.2 The Contractor shall not apply any herbicide of an explosive, inflammable, highly volatile or corrosive nature, which may damage crops vegetation or property or be hazardous to humans or animals. The Contractor shall assume full responsibility for the efficiency and safety of whatever herbicide are used.

11.5.3 Dumping or polluting of any kind will not be permitted. This stipulation is also applicable to the washing out of tanks and equipment containing harmful herbicide and pollutants.

The Contractor shall institute and maintain procedures for the safe disposal of all herbicide and residual materials originating from the execution of the works.

Containers and residual material shall not be disposed of on Transnet Freight Rail property or as part of Transnet Freight Rail refuse.

11.5.4 The Contractor shall take particular note of environmentally sensitive areas and shall plan and execute his/her work with the utmost care and responsibility.

12 DEFINITIONS

12.1 **Project Manager's Deputy**. Any person appointed by the Employer to deputise for him / her in supervising and carrying out the Contract.

12.2 CONTROL

12.2.1 Control is achieved when all existing or potential growth of vegetation is permanently impaired or destroyed by the application and effects of herbicide, to the extent that:

- The constituent parts of all plants occurring within the area of treatment (worklots) cease to exist as living organisms or entities; and
- the development of new growth of plants from dormant seeds is effectively counteracted or suppressed, for at least the growing season of the year in question; and

- there are no dead or dry remains of any vegetation within the treated area (worklot), which may constitute a hazard, danger, or hindrance to Transnet Freight Rail personnel, equipment trucks or operations.

12.2.2 Control constitutes a process or situation where the destruction of vegetation on treated areas occurs on an **on-going basis** and not only at the time of measurement and payment inspections.

12.3 WORKLOTS

12.3.1 A WORKLOT is a subdivision of any area on which the Contractor shall control vegetation.

- In the case of yards and areas of a worklot will be areas of 300m² each.
- Worklots in yards, depots/areas are not demarcated individually. The number of worklots within any area to be treated is calculated by dividing the total surface area by the surface area of single worklot i.e. 300 square metres.
- In yards, depots/areas where control is required worklots may be irregular in shape. For inspection and payment purposes, worklots shall be physically measured where necessary. In such instances the Project Manager's Deputy shall decide in advance and advise the Contractor accordingly, of the method of measurement to be adopted in any particular area.
- In yards, depots/areas worklots will normally be measured parallel to the main direction of the track work present, or parallel to the main axis of any other area. Worklots will not be measured individually in different directions but will form part of a pattern of continuous and parallel worklots covering, in the most effective manner possible, the surface of any particular area.

12.4 GROWING SEASON

12.4.1 The growing season starts with the rainy season which is that time of the year when most of the specified area's average rainfall occurs. In winter rainfall areas the months of June to July of each year applies and for summer rainfall areas the months of September to November of each year applies.

12.5 Formation is the finished earthworks surface upon which the track is laid.

12.6 Ballast means that part normally consisting of crushed stone, gravel, ash or muck, (the material placed on the formation to support the track superstructure).

12.7 Listed invasive plants means any invasive plant species listed in terms of section 70(1) of the National Environmental Management; Biodiversity act, Act 10 of 2004, as well as declared weeds and invader plants proclaimed under the Conservation of Agricultural Resources Act, Act No. 43 of 1983, including amendments (GN Regulation 1048 of 25/05/1984 amended by GN Regulation 280 of 30/03/2001) thereto.

12.8 Spraying means the even and uniform application of herbicide at the rate specified and applies to liquid, granular or any other formulation.

13 METHOD OF VEGETATION CONTROL

13.1 The Contractor's methods and program shall provide rapid and effective control in all areas. Techniques, programming and herbicide employed shall therefore be directed at this aim. The Contractor shall carry out immediate treatment of growth in all instances where rapid and

effective control is not achieved during any period of the Contract.

- 13.2 Where an herbicide approach to vegetation control is adopted, hoeing (skoffel) and slashing of live vegetation will not be allowed as a method of achieving control. Herbicides which act as a scorching agent (e.g. with Paraquat or similar active ingredient) are incapable of meeting the definition of control and shall not be used. Scorching of canopy growth only, shall not constitute control of vegetation as defined. Slashing of dead material to below the height specified in 15.2 will be permitted.
- 13.3 Vegetation control in terms of the Contract will normally be required in respect of the yards. The type of herbicides and the methods of application to be employed are as specified in the applicable returnable documents (Clause 9.3) and are subject to the approval of, and monitoring by the Project Manager's Deputy.
- 13.4 If the Contractor uses different herbicides from those approved by the Project Manager's Deputy as contained in the scope of work document, approval shall first be obtained in writing for use of other herbicides.
- 13.5 Application methods shall, however, be entirely in accordance with the manufacturer's specifications and recommendations for safe and effective use of the herbicides or herbicide mixtures concerned.
- 13.6 Any deviation from the method of work submitted as per the applicable returnable document (Clause 9.3) by the Contractor shall be subject to the approval of the Project Manager's Deputy.
- 13.7 During the course of the Contract the Project Manager reserves the right to advise the Contractor on the active ingredients utilised to minimize the risk for the weeds to develop resistance to certain herbicides.

14 STANDARDS OF WORKMANSHIP FOR INDIVIDUAL WORKLOTS

- 14.1 Vegetation control shall be such that there is no live vegetation growth (including creepers) exceeding 150mm in any dimension, occurring in the worklot, nor more than fifteen (15) live plants of any lesser size.

This excludes overhanging canopy growth of plants: -

- (a) with rootstock established entirely outside the worklot.
- (b) with rootstock established on the boundary of the worklot, provided that:
 - control was achieved over the remainder of the worklot.
 - a clear spray line is visible, showing that herbicide was effectively applied over the entire surface of the worklot.
 - the Contractor took the presence of such growth into account and that the choice of herbicides use was adjusted accordingly.
 - The boundary concerned is not the boundary of an adjoining worklot.

This exception does not apply in the case of creeping grasses (e.g. Cynodon) with nodal rooting within the worklot even though such growth may originate from a plant outside the worklot.

- 14.2 In addition, there shall be no dry or dead remains of vegetation within the worklot greater than 150mm in height and of a density such that it constitutes a hazard, hindrance or danger to Transnet Freight Rail operations, trucks or equipment in the area.

The evaluation to what density of dry or dead growth constitutes a hazard, hindrance or obstruction shall be made by the Project Manager's Deputy.

15 MANUAL REMOVAL OF VEGETATION

- 15.1 No felling or hoeing of vegetation will be allowed during the two months preceding final inspection. Herbicides may not be applied 2 weeks preceding final inspection for a season or a year's program. All lots where such hoeing and felling or herbicides application were done will be rejected.
- 15.2 For this Contract, the Contractor should timeously acquaint him/herself with the existing conditions of the sites and ensure that his/her prices for the **12 months**, includes all work necessary to achieve the required control, e.g. mechanical control, slashing and removal of debris before or just after spraying and cutting . The intention to slash and remove should be cleared with the Project Manager's Deputy prior to work starting.

16 REMEDIAL WORK

- 16.1 The Contractor shall carry out remedial work to all worklots where control has not been achieved, prior to the official inspections taking place. Such remedial work shall include the removal of dry or dead growth with any dimensions in excess of 150mm and forming a nuisance or hazard to Transnet Freight Rail operations, from the treated worklots.
- 16.2 The Project Manager's Deputy may, at any time after the first measurement order the Contractor to carry out remedial action, to commence within 2 weeks after being so ordered. Prior to the commencement of this proposed remedial action an envisaged remedial work program must be submitted to the Project Manager's Deputy for his/her approval. Failing to do so the Project Manager's Deputy may arrange for such action to be carried out by others at the cost of the Contractor.
- 16.3 Hoeing (skoffel) will not be allowed on its own as a remedial action.
- 16.4 Fire may not be used as a method of vegetation control or as a method of remedial action.

17 OVERALL CONTROL

- 17.1 Material breach or penalty if does not spray entire contract area
- 17.2 The overall standard of control to be achieved by the Contractor over the Contract area, defined as "Overall Control" and expressed as a percentage, will be determined by application of the following formula;

$$\text{Overall Control} = \frac{(\text{Worklots treated} - \text{Worklots rejected})}{\text{Worklots treated}} \times 100$$

- 17.3 The standard of "Overall Control" (service level table) to be provided on each district by the Contractor shall be:

YEAR	1	2
Minimum % of the total work, which shall comply, with the standard of control for individual work-lots.	90%	95%

17.4 Failure by the Contractor to achieve the standard of "Overall Control" shall constitute a material breach of Contract by the Contractor, which will entitle the Employer to act in terms of the Standard Terms and Conditions of Contract for the provision of services to Transnet.

18 GENERAL SPECIFICATIONS

18.1 WORK SPECIFICATIONS

18.1.1 Standard Specifications.

The following standard Specifications will be applicable to this Contract:

SANS 1200A – General

SABS Code of Practices no 0206-1983 "Safety procedures for the disposal of surplus pesticides and associated toxic waste."

18.1.2 The following Transnet Generic Specifications will be applicable to this Contract:

- E4E (August 2006): Safety arrangements and procedural compliance with the Occupational Health and Safety Act, Act 85 of 1993 and regulations.
- E7/1 (July 1998); Specifications for works on, over, under or adjacent to railway lines and near high voltage equipment.

18.2 HEALTH AND SAFETY

18.2.1 The Contractor shall at all time comply with safety rules, regulations and legislation, as well as Transnet Freight Rail (TFR) Safety Guidelines for Infrastructure (Latest Edition).

18.2.2 The Contractor shall at all times comply with the Basic Conditions of Employment Act as well as all other relevant labour legislation. The Contractor must conduct his own formal risk assessment to identify all risks. The Contractor is to clearly indicate in his scope of work the processes and procedures he intends implementing to mitigate the total of all these risks: e.g.

- Working with herbicides
- live OHE
- Executing work on one line while a normal train service is running on adjacent line/s
- Sanitation and refuse disposal as a threat to the environment.

18.2.3 The Contractor shall be responsible to ensure the use of only technically competent trained staff on all types of work. The Contractor will have to ensure that the Contractor's personnel operating his/her own locomotives, haulage equipment, road rail vehicles or any other track vehicles on Transnet Freight Rail lines undergo a Transnet Freight Rail Operating course and also receive a certificate of track section competency. This cost is to be borne by the Contractor.

18.2.4 The Contractor shall ensure that all workers are appropriately equipped and wearing Personal Protective Equipment (PPE) and that Safety Talks are conducted and noted in the Site Diary before the start of every shift.

18.2.5 The Contractor shall be responsible to ensure that site staff are always competently trained with regards to Electrical Awareness Training.

18.2.6 The Contractor shall be responsible to ensure that workers working on machines (high risk

areas), operators, machine fitters, area Project Manager's Deputies and Contract 'supervisors' site staff are always competently trained with regards to PWC Electrical Educational Training.

- 18.2.7 The Contractor shall also be responsible to ensure that Contract managers in charge of sites are always competently trained with regards to COM Competency Electrical Training (to follow PWC Training).
- 18.2.8 The Contractor shall ensure that all his employees undergo medical surveillance where required by legislation.
- 18.2.9 Non-compliance with safety requirements will result in an immediate suspension of work without payment.
- 18.2.10 Where training is required by the Contractor, Transnet Freight Rail (TFR) is committed to provide training, the Contractor shall qualify as to what and how many staff, training will be required for. After award of the Contract, the Contractor shall then arrange with the appropriate Transnet Freight Rail (TFR) representative, through the Project Manager's Deputy, for this training / testing.

The following training shall be arranged for the following Contractors staff:

Course	Objective	Duration & trainer	Grade to attend
A) Awareness (Electrical)	To inform all Contractors staff working near a machine and on the line on electrified sections of the dangerous situations of high voltage OHTE	Two hour on-the-job lecture and training. Accredited Electrical trainer / Depot's Electrical Supervisor	• All workers and staff working on the Contract

The electrical awareness training must be arranged for beforehand on-the-job.

The electrical educational and competency training may be arranged for at either a depot's lecture room's (Transnet Freight Rail (TFR) property), or at a venue of the Contractor's choice (Contractors cost).