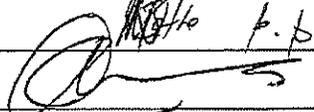
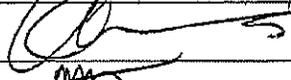


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|---|---|--|-----------------|
| PLANT AREA: MATLA ASH WATER STORAGE DAMS | | | |
| TITLE: FIVE YEAR CONTRACT ON DREDGING OF SWR, AWR 1&2, UNIT 7, OLD DAM SEEPAGE DAM, NEW ASH DAM SEEPAGE DAM 1&2, SILT TRAPS/OIL SKIMMER AND CONTINUOUS CLEANING ON STATION DRAIN CHANNEL AND SILT SETTLING PONDS. | | | |
| REF: MEA 06702 | Reference Rev No: 0 | MULTIDISCIPLINARY: No | Plant Level 1 |
| COMPILED BY | Name: Setati Jack Moyaha Civil Engineer | Signature  | Date 09/11/2022 |
| APPROVED | Name: Gavin Phelelo Aux Engineering Manager (Acting) | Signature  | Date 10/11/2022 |
| APPROVED | Name: Sibongile Nkosi Manager Coal supply | Signature  | Date 11/11/2022 |
| SUPPORTED | Name: Lindo Ngobese Engineering Manager | Signature  | Date 09/11/2022 |
| REVIEWED | Name: Dorah Mkhonto Quality Manager | Johan Lourens Signature  | Date 2022/11/23 |
| REVIEWED | Name: Refilwe Mokobodi Environmental Department | Signature  | Date 25/11/2022 |

NB: Do not tamper with the template.

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GENERAL

- Data books, reviews, reports and diagrams/drawings shall be submitted to Engineering after the completion of the work Engineering to forward the data books to Quality Department (Document Control)
- All QCP's to be submitted to Engineering and Quality for approval prior to outage/project or maintenance work commencement

| | SCOPE OF WORK DESCRIPTION / ACTIVITY | PROCEDURE, SPECIFICATION, ENG REQUIREMENTS / DOCUMENTATION | HOLD POINTS, WITNESS, REPORTS | RESPONSIBLE PARTY |
|-----|--------------------------------------|--|-------------------------------|-------------------|
| 1 1 | Safety | <ul style="list-style-type: none"> All work is to be done in accordance with Matla plant procedures and safety regulations (GGR 0992) Matla power station induction must be done before any work commences Permit to work must be in place before any work commences Worker's register must be completed and daily risk assessment conducted before any work commences | Eskom to witness | Contractor |
| 1 2 | Environmental Management | <ul style="list-style-type: none"> All activities listed in the National Environmental Act 107 of 1998, EIA Regulations as amended, must have environmental AUTHORISATION before commencement of work The contractor shall comply with all applicable legal and other requirements The polluter pays principle will be applied The contractor manager shall ensure compliance with Eskom Matla Environmental procedures to ensure the prevention of pollution (refer OMOP 4090 and 4402) The last payment will be processed based on the status of the last housekeeping check sheet (Annexure C OMOP 4402) of designated area | Eskom to witness | Contractor |

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|----|-------------------------------|--|------------|------------|
| | | <ul style="list-style-type: none">EMS file based on ISO14001 will be required | | |
| 13 | Quality Management | <ul style="list-style-type: none">The contractor/executioner of work will be responsible for drawing up all QCP documentation and this must be approved by engineering and authorised by the Quality Department before commencing with the workContractors/executioner to adhere to QM 58 and OMOP4497 requirementsNumber of NCR issued can affect your next tendering processThe QCP shall be signed progressively by the Engineer/Supervisor, Eskom QC Inspector, Contractor QC Inspector and/or AIANo procuring of outage items without the approval of scopes by qualityAll outage scopes creep and scopes addition should be approved by qualityNo contractor should be in the possession of scopes for execution without the scopes approved by qualityThe contractor is subjected to quality auditing at any point in time during execution of scope | Hold point | Contractor |
| 14 | Inputs from other departments | | | |
| 15 | Commissioning reference | | | |

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| | SCOPE OF WORK DESCRIPTION / ACTIVITY | PROCEDURE, SPECIFICATION, ENG. REQUIREMENTS / DOCUMENTATION | HOLD POINTS, WITNESS, REPORTS | RESPONSIBL E PARTY |
|--------------|--|--|--|-----------------------|
| | <p>This scope gives the requirements and specifications for the FIVE YEAR CONTRACT ON DREDGING OF SWR, AWR 1&3, UNIT 7, OLD DAM SEEPAGE DAM, NEW ASH DAM SEEPAGE DAM 1&2, RAW WATER PAN, SILT TRAPS/OIL SKIMMER AND CONTINOUS CLEANING ON STATION DRAINS CHANNEL AND SILT SETTLING PONDS.</p> <p>The work to be done involves clearing of reeds and dredging of sludge in all dams mentioned by means of a long reach excavator, floating dredger, and multipurpose amphibious machine this also involves dumping Trucks for the transportation of the dredged ash to the new Ash Dam. Additionally, the cleared reeds are required to be transported to a licensed dumping site.</p> <p>Matla PS performs sonar survey twice a year as part of water return dams operation. The location and amount of sludge from each dam will be stipulated from the sonar survey that also include the removal of reeds.</p> | | | |
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| 1. | <p>Remove silt/Dredge and reeds from the following Matla water storage dams</p> <ul style="list-style-type: none"> • SWR dam • AWR dam 1& 2 • Unit 7 dam • Raw Water Pan (Dirty water) • Oil skimmer and silt traps • Continuous cleaning on Station drains and silt settling ponds • Old ash dam seepage dam • New ash dam seepage dam 1&2 | Refer figure 1 for locations | Hold | Contractor |
| 2. | <p>Multipurpose amphibious machine or Auger Dredger</p> <p>Build Temporary compartments on the old ash dam for each dam that will accommodate the sludge after dredging and pumping of sludge</p> | <p>Disposal facilities</p> <p>The following dams will dispose both ash silt and reeds at the old ash dam since is the closest (less than 0.5km) to avoid spillages during transportation.</p> <ul style="list-style-type: none"> • SWR dam | Hold | Contractor |

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| | <p>The HDPE pipeline will be installed to transport the material from each dam. The dredger will be launched inside the dam and start pumping.</p> <p>The Booster Pump will be between the dam and the ponds.</p> <p>8x6 slurry pump with 28% high chrome wet end powered by 206KW diesel engine mounted on site trailer that produce 400 cubic meters at 40 meter head</p> <p>Note!!! Temporarily compartments will be rehabilitated by form of levelling sludge and side walls then import the top soil to spread it on top of where the temporary ponds where situated</p> | <ul style="list-style-type: none"> • AWR dam 1 & 2 • Unit 7 dam • Oil skimmer and silt traps • Continuous cleaning on Station drains and silt settling ponds <p>The following dams will dispose both ash silt and reeds at the new ash dam since is the closest (less than 0.3km) to avoid spillages during transportation.</p> <ul style="list-style-type: none"> • Old ash dam seepage dam • New ash dam seepage dam 1&2 | | |
| 3. | <p>Mechanical Dredging/ Cleaning of the dams</p> <ul style="list-style-type: none"> • The cleaning of the dams will be done simultaneously • Start by removing the reeds using long reach amphibious dredger then dispose to a licensed dumping site | | Hold | Contractor |

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| | <ul style="list-style-type: none"> • Tipper trucks will be used to transport the reeds from the dams to the ash dam. • Utilize the Hydraulic Auger dredger driven by 200kw diesel engine or multipurpose amphibious machine to clean the dams. | | | |
| 4. Tools and Equipment | <ul style="list-style-type: none"> • 2X Multipurpose amphibious machine or Auger Dredger • 4X Amphibious Excavator • 4X Long Reach Excavator • 2X 40 Ton Excavator • 4X 20m³ Tipper Truck • 4X 10m³ Tipper Truck • 4X Diesel Pump • 1X Water Tanker • 1X Grader • 315 HDPE Pipes (1 km) • 2x Diesel pumps with a throughput of 550m³/hour at the head of 40m • 2km long 310mm diameter HDPE pipe line | | Hold | Contractor |

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| 5. Sizes of water return dams | | Witness/Verify | Contractor |
|--|----------------------------------|----------------|------------|
| Dam Name | Size | | |
| SWR dam | 2 777 250 m ³ | | |
| AWR dam 1 & 2 | 150 000 & 185 593 m ³ | | |
| Unit 7 dam | 202 344 m ³ | | |
| Raw Water Pan (Dirty Water) | 68 082 m ³ | | |
| Oil skimmer and silt traps | 28 000 m ³ | | |
| Continuous cleaning on Station drain and silt settling ponds | 21 000 m ³ | | |
| Old ash dam seepage dam | 41 716 m ³ | | |
| New ash dam seepage dam 1&2 | 23 456 & 39 492 m ³ | | |

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| 6. | Housekeeping Remove all rubble and other unwanted material from site to spoil at a licensed dumping site (New and Old Ash DAM) | | Witness | Contractor |
| 7. | Important Notes: <ul style="list-style-type: none">- Contractor is not limited and will be required to pump water from the dam that need to be dredged to other dam to expose the sludge therefore contractor needs to supply two(2) diesel pump's that can pump water from one dam to the other (2x Diesel pumps with a throughput of 550m³/hour at the head of 40m)- Supply the HDPE pipes and fittings (valves, couplings and pipe joints) which can be used for pumping water from one dam to the other (pipe length 2km and pipe size 310 mm in diameter)- The Dam sizes given shall be used for tendering purposes only. The Successful Contractor will have to come on site and verify the dimensions and locations and will notify the Engineer or project manager of the changes before any work is done. | | Witness | Contractor |

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| | - Quantities of both sludge and reeds will come from the sonar survey which Eskom Engineer will provide twice every year for duration of the contract which is 5 years. | | | |
|--|---|--|--|--|

BILL OF MATERIAL

| Full description | Material/Spares/Equipment | Specifications of Material/Spares/Equipment | Stock No | Part Number | Required Quantity |
|------------------|---------------------------|---|----------|--------------|-------------------|
| Refer to scope | Section 4 | | | Page 7 of 13 | |

| SCOPE COMPILATION REFERENCES | | | | |
|---------------------------------------|-----|----|-----|----------|
| SOURCE & Ref No | Yes | No | N/A | Comments |
| Previous outage service reports | | | X | |
| Return to service data packages | | | X | |
| Maintenance Strategy with Rev number | | | X | |
| SAP defects (attach list as appendix) | | | X | |

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| GHRMS (STEP) reports (Generation Heat Rate Management System) | | | X | |
| Online Condition Monitoring | | | X | |
| Pre-outage performance test results | | | X | |
| Post outage performance test results | | | X | |
| GPSS/ Plant Performance data on UCLF incurred | | | X | |
| OMS / IIRMS recommendations (Audits Reports) | | | X | |
| Risk controls (IRM system) | | | X | |
| Previous audits and reviews (e.g. ERAP) | | | X | |
| Engineering Change Requests (Projects) | | | X | |
| LOPP strategy reports | | | X | |
| URS | | | X | |
| Philosophy (Outage) | | | X | |
| Condition Monitoring Report | X | | | |
| VA/PHD Viewer trends | | | X | |
| Corrective Actions | | | X | |
| CARAB reports | | | X | |
| Statutory Requirements | | | X | |
| Grid code requirements | | | X | |
| Waivers and Exemptions | | | X | |

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| Calibration requirements | | | X | |
| Previous Outage SOW variations | | | X | |
| Post Mortems Actions from previous outages | | | X | |
| Pre-Outage plant walks | | | X | |
| Risk based inspection (RBI) report | | | X | |
| Simulation, TOIs, OON, SI | | | X | |

COMMENTS

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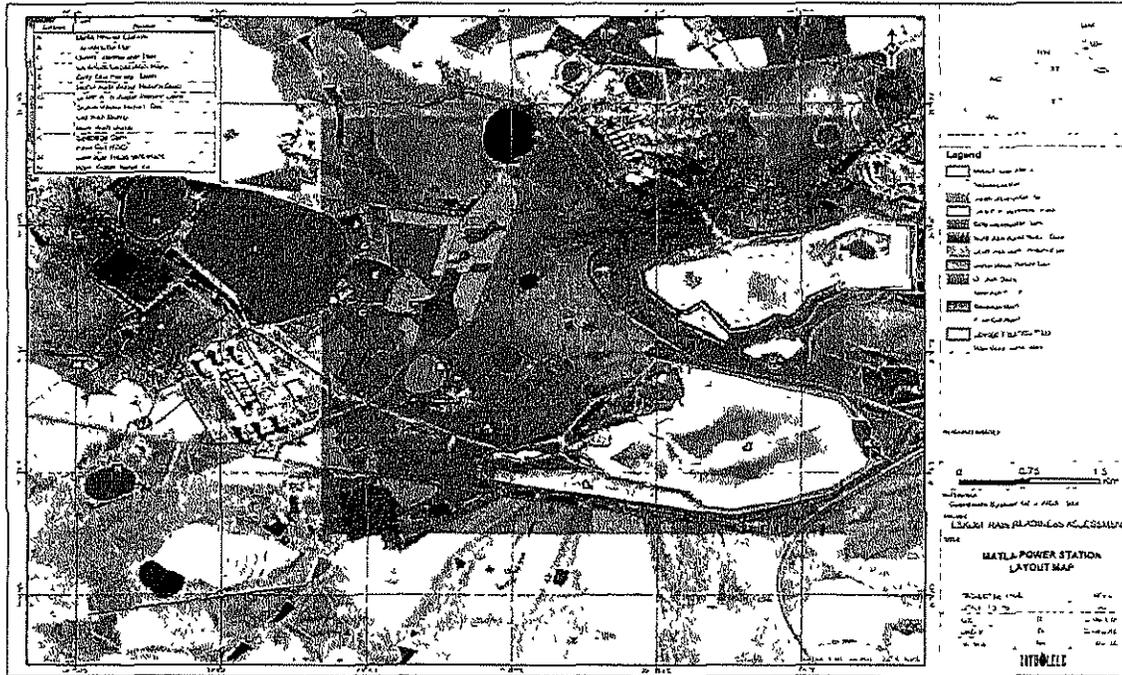


Figure 1: Dams locations

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