

REQUEST FOR PROPOSALS

GEF Project ID: 5532

Disposal of PCB oils contained in transformers and disposal of capacitors containing PCB in Southern Africa

PROVISION OF LABORATORY ANALYSIS OF TRANSFORMER OILS FOR PCB CONTENT

INTRODUCTION

Under the Global Environment Fund Project #5532 '**Disposal of PCB oils contained in transformers and disposal of capacitors containing PCB in Southern Africa**', Africa Institute is working together with UN Environment towards the collection and elimination of PCB contaminated electrical equipment and transformer oil in the SADC region. Involved with this process is the analysis of PCB contaminated transformer oils so that items can be classified according to a waste stream and disposed of correctly within the project disposal strategy. To maximise efficiency under this contract, the Africa Institute will coordinate procurement of similar analytical services for other UN Environment projects happening simultaneously in Africa. These are:

GEF #5367 'Cameroon through the use of local expertise and the development of national capacities'; and GEF #2270 'Demonstration of a Regional Approach to Environmentally Sound Management of PCB Liquid Wastes and Transformers and Capacitors Containing PCBs'.

SERVICE DESCRIPTION

As part of detailed inventories of PCB contaminated electrical equipment, transformer oil samples are currently being collected in the SADC and West Africa regions and in Cameroon. The project is seeking a reputable, ISO certified laboratory to undertake the analysis of transformer oils for PCB content within the period February to September 2018. The oil samples will be analysed as part of an analytical strategy to determine the PCB concentration for each item. The analytical strategy is the following:

- i. In the field, all samples collected by inventory teams will be tested using the oil density test, samples testing positive for PCB will be sent directly for laboratory analysis.
- ii. In the field, samples demonstrating a negative oil density test will then be tested using the Chlor n Oil field test which will indicate whether the oil is above or below 50ppm. Samples demonstrating chlorine content above 50ppm using this test will then be sent for laboratory analysis;
- iii. At the laboratory, all samples received will be analysed using a method offering a minimum accuracy of 10ppm for **Total Organic Chlorine** content using either ICP ASTM D5185 or UOP779;
- iv. At the laboratory those samples demonstrating **Total Organic Chlorine** content of between 30ppm to 70ppm will then be analysed using IEC method 61619, demonstrating a minimum accuracy of 2ppm for **PCB** content.



DISTRIBUTION LIST

This RFP has been posted on the Africa Institute Website www.africainstitute.info and distributed to all National Focal points of participating countries. Additionally the following laboratory services have been requested to respond:

- OKSA, Morocco
- Wear Check, International
- LHM, Fluidex, South Africa
- SGS Ellesmere port, UK:
- SGS, South Africa
- Laborelec, Belgium

REQUIREMENTS

As part of their offers Bidders should note the following:

- Laboratories offering analytical services must be ISO 17025 certified and be GLP certified, or equivalent;
- Samples will be sent for analysis to the laboratory once member countries have collected a minimum of 100 samples, samples will then be submitted on a rolling basis once the next 100 samples have been collected etc.;
- Samples will be sent to the laboratory using a courier selected by the project;
- Samples will be accompanied by a ‘Chain of Custody’ sample tracking document to be provided by the laboratory;
- On receipt of samples the laboratory will be responsible for the identification, tracking and storage of samples;
- Sample results should be issued on excel spreadsheet and specified in parts per million (ppm);
- Under this project it will ***not be necessary*** to issue a certificate for each individual analytical result determined;
- Samples should be kept at the laboratory for a minimum of 60 days following issue of the analytical result so that re-analysis of samples can be conducted, if required;
- Laboratories will be able to submit invoicing to request payment quarterly following contract award.

An indication of sample numbers to be received by laboratories for pricing purposes is given in Appendix A. Laboratories should note these sample numbers are ***indicative only*** and may change, depending on the final quantity of PCB electrical equipment and PCB oil discovered in each participating country.

SELECTION CRITERION

The Proposal shall be evaluated on the basis of its responsiveness towards the requirements above:

| | | |
|----|-------------------------|-----|
| As | ISO 17025 certification | 60% |
| Bs | Method certification | 20% |
| Cs | Turnaround time | 10% |
| Ds | Cost of analysis | 10% |

Maximum 100 points will be given to the lowest financial offer (D), and other financial proposals will receive the points inversely proportional to their financial offers, i.e. $D_s = 100 \times F_m/F$, in which D_s is the financial score, F_m is the lowest price and F the price of the proposal under consideration.

The total score will be a weighted score for all the attributes above: $T_s = 0,6 \times A_s + 0,2 \times B_s + 0,1C_s + 0,1xD_s$

SUBMITTING THE TENDER

The consultant companies / institutions / organizations are requested to submit in English a proposal for the consultancy, as per the requirements and Appendix A:

Your offer should comprise technical proposal and financial proposal, in separate sealed envelopes, and should reach the following address no later than 16:00 hours – 26th January, 2018 (South African Standard Time).

Postal Address: The Africa Institute
Private Bag X447
Pretoria 0001
South Africa.

Physical Address: Africa Institute
Environment House
473 Steve Biko Road
Pretoria, 0083
South Africa

Telephone: +27 12 399 9862/3

Email : Dr Koebu Khalema at : kkhalema@environment.gov.za

Any proposal received by the Africa Institute after the deadline for submission of proposals will be rejected. The language of the tender and its annexes is English.

The bidder shall bear all costs associated with the preparation and submission of the proposal. The Africa Institute will not be responsible or liable for those costs, regardless of the conduct or outcome of the bid.

Proposals must offer services for the total requirement. Proposals offering only part of the requirement will be rejected.

The proposal shall comprise the following documents:

- Operational and technical part of the proposal, including documentation to demonstrate that the bidder meets all requirements
- Financial offer – in response to Appendix A

The bidder shall submit the original proposals signed by the bidder or person/persons duly authorized to bind the bidder to the contract. The latter authorization shall be indicated by a written power-of-attorney accompanying the proposal. The proposal shall contain no interlineations, erasures or overwriting.

Tenders must remain valid for a period of 60 day after the deadline for submission of tenders. Any change in the proposed personnel during the above mentioned period may cause the disqualification of the tender except for reasons of *force majeure*.

QUERIES AND AMENDMENTS

Any queries and clarifications regarding the invitation to tender shall be sent to the contact persons (kkhalema@environment.gov.za) through e-mail, cc: jmolapisi@environment.gov.za

The deadline for the **first round of queries is 23/12/2017 AT 11.00 HOURS; GMT +2** and for the **second round 12/01/2018 AT 09.00 HOURS; GMT +2**. Tenderers are encouraged to submit queries as early as possible. The queries will be answered by publishing them at <http://www.africainstitute.info/documents/>

Only communication and contacts made through e-mail to the contact person will be considered. **Each mail has to be sent with the heading “Query / PSB Analysis”.**

Possible amendments to the Tender Documents issued during the tendering period will become part of the Tender Documents and be published at

<http://www.africainstitute.info/documents/>

APPENDIX A: INDICATIVE SAMPLE NUMBERS

| Quantity of Samples | Analysis type | Description / detailed quantity | Test Method | Determinand | Limit of Detection | Actual specifications offered, including if method is ISO certified (to be specified below by bidder) ↓ |
|---------------------|--------------------|--|---------------------|-------------|--------------------|---|
| Total 168 | GC-ECD | Determination of PCB Content in Insulating Liquids | IEC 61619 or UOP779 | PCBs | 2mg/kg | |
| 90 | | SADC Region | | | | |
| | | Botswana 8 | | | | |
| | | Lesotho 11 | | | | |
| | | Malawi 5 | | | | |
| | | Mozambique 16 | | | | |
| | | Namibia 5 | | | | |
| | | Seychelles 4 | | | | |
| | | Swaziland 16 | | | | |
| | | Tanzania 5 | | | | |
| | | Zambia 15 | | | | |
| | | Zimbabwe 16 | | | | |
| 42 | West Africa Region | | | | | |
| | Benin 4 | | | | | |



| | | | | | | |
|------------|-----------------------------|---|----------------|------------------|---------|--|
| | | Burkina Faso 4 | | | | |
| | | Guinée 2 | | | | |
| | | Mali 1 | | | | |
| | | Mauritanie 3 | | | | |
| | | Niger 14 | | | | |
| | | Sénégal 14 | | | | |
| 36 | | Cameroon | | | | |
| Total 6400 | ICP-OES or Micro-coulometry | Determination of Organic Chlorine Content in Insulating Liquids | ICP ASTM D5185 | Organic chlorine | 10mg/kg | |
| 2600 | | SADC Region | | | | |
| | | Botswana 231 | | | | |
| | | Lesotho 325 | | | | |
| | | Madagascar 24 | | | | |
| | | Malawi 20 | | | | |
| | | Mozambique 462 | | | | |
| | | Namibia 139 | | | | |
| | | Seychelles 109 | | | | |
| | | Swaziland 106 | | | | |
| | Tanzania 222 | | | | | |
| | Zambia 446 | | | | | |
| | Zimbabwe 462 | | | | | |
| 2000 | West Africa Region | | | | | |
| | Burkina Faso 170 | | | | | |
| | Guinée 75 | | | | | |
| | Mali 60 | | | | | |
| | Mauritanie 140 | | | | | |
| | Niger 700 | | | | | |
| | Sénégal 675 | | | | | |
| 1800 | Cameroon | | | | | |

END.