

## Umeme - Action Plan

| # | Action Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Timeline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | IFC requirement                                                                                         |
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| 1 | <p>Undertake further investigations into the possible risk of significant PCB presence in transformer oils, focusing on a sub-set of 1985 and older transformers. If PCBs are present, formulate a response for discussion with IFC and NEMA, e.g.:</p> <ul style="list-style-type: none"> <li>• Signage at all PCB-containing transformers indicating PCB content, hazard warning</li> <li>• Replacement of transformer oil containing &gt; 45 ppm PCBs with fresh oil and storage of the contaminated oil at a NEMA-approved facility</li> <li>• Possible licensing and notification of NEMA for sub-station and storage sites containing above 45 ppm of PCBs</li> <li>• Provision of appropriate PPE and training to staff who may be exposed to PCBs during transformer refilling, repair, maintenance and disposal</li> <li>• Establishment of measures to prevent cross-contamination of transformers</li> <li>• Establishment of appropriate disposal methods for used oils</li> <li>• Clean-up of soils affected by major oil spills linked to transformers dated 1985 and before.</li> </ul> | <p>Identify transformers with nameplates from 1985 and before and provide an estimated time horizon for either replacing the transformers or removing PCB contaminated oil to a storage facility agreed by NEMA.</p> <p>Based upon this analysis, and independent expert opinion, evaluate whether chemical analysis of a representative sample of older transformers is justified and provide feedback to IFC.</p> <p>If the above steps indicate potentially significant levels of PCBs in some transformers, formulate a response, as per bullet points in the previous column, for discussion with IFC and NEMA, within 3 months of first disbursement.</p> <p>Implement agreed response according to agreed timeframe.</p> | <p>Condition of first disbursement.</p> <p>Condition of first disbursement</p> <p>Positive Covenant</p> |
| 2 | Prepare an inventory of waste materials stored at the main depot(s), an audit of associated pollution (i.e. mainly oil spills) and an action plan for improved practice.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Before first disbursement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Condition of first disbursement.                                                                        |
| 3 | Initiate a structured process to investigate options for safe disposal of treated wooden utility poles, in consultation with pole suppliers, potential fencing/building contractors and NEMA, in order to regulate disposal and minimize health risks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Within 6 months of first disbursement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Positive covenant.                                                                                      |
| 4 | Establish and operationalize a formal Environmental Management System (EMS) to ensure that environmental and social issues are managed in a structured and continuous manner. In the interim, compile and roll out key operational procedures prior to EMS finalization: management of transformer oils, waste storage, separation and disposal, treated pole management and management of chance finds (i.e. process to follow if graves or cultural artefacts are found during sub-station construction/refurbishment).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <p>By end 2011.</p> <p>By end 2009.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Positive covenant.</p> <p>Positive covenant.</p>                                                     |