



DAFTAR ISI

| | |
|--|------|
| LAPORAN TUGAS AKHIR | i |
| LEMBAR PENGESAHAN | ii |
| SURAT PERINTAH MAGANG | iii |
| SURAT KETERANGAN SELESAI MAGANG | iv |
| PERNYATAAN BEBAS PLAGIASI | v |
| KATA PENGANTAR | vi |
| DAFTAR ISI | viii |
| DAFTAR GAMBAR | x |
| DAFTAR TABEL | xi |
| ABSTRAK | xii |
| <i>ABSTRACT</i> | xiii |
| BAB I PENDAHULUAN | 1 |
| 1.1 Latar Belakang | 1 |
| 1.2 Rumusan Masalah | 1 |
| 1.3 Maksud dan tujuan | 2 |
| 1.4 Batasan Masalah | 2 |
| 1.5 Sistematika penulisan | 2 |
| BAB II LANDASAN TEORI | 4 |
| 2.1 Pemutus tenaga (<i>PMT</i>) | 4 |
| 2.2 <i>Megger</i> | 5 |
| 2.3 Pengukuran <i>Insulating oil</i> | 7 |
| 2.4 <i>FLIR TG165</i> | 8 |



| | | |
|--|--|----|
| 2.5 | <i>Pengertian Maintenance</i> | 9 |
| BAB III Metode Maintenance | | 12 |
| 3.1 | Spesifikasi Pemutus Tenaga SHINKO HL3-6A | 12 |
| 3.2 | <i>Maintenance</i> | 16 |
| 3.3 | <i>maintenace level 1</i> | 19 |
| 3.4 | <i>maintenace level 2</i> | 20 |
| 3.5 | <i>maintenace level 3</i> | 21 |
| BAB IV ANALISA DAN PEMBAHASAN | | 25 |
| 4.1 | <i>Maintenance level 1</i> | 25 |
| 4.2 | <i>Maintenance level 2</i> | 25 |
| 4.3 | <i>Maintenance level 3</i> | 26 |
| 4.4 | <i>Breakdown Maintenance</i> | 29 |
| 4.5 | Inspeksi setelah <i>Maintenance</i> | 38 |
| BAB V PENUTUP | | 42 |
| 5.1 | Kesimpulan..... | 42 |
| 5.2 | Saran..... | 42 |
| Daftar pustaka | | 43 |
| lampiran..... | | 44 |
| LAMPIRAN | | 44 |



DAFTAR GAMBAR

| | |
|--|----|
| Gambar 2. 1. <i>Megger</i> | 6 |
| Gambar 2. 2. Kabel probe | 6 |
| Gambar 2. 3. Kabel <i>power</i> | 6 |
| Gambar 2. 4. FLIR TG165 | 8 |
| Gambar 3. 1. <i>Nampe Plate</i> PMT HL3-6 | 13 |
| Gambar 3. 2. Bagian kontak PMT | 14 |
| Gambar 3. 3. <i>Line diagram</i> PLTA Wonogiri | 15 |
| Gambar 3. 4. <i>Flowchart Maintenance</i> | 18 |
| Gambar 3. 5. Alur evaluasi <i>maintenance</i> | 17 |
| Gambar 3. 6. indikator PMT | 19 |
| Gambar 3. 7. Pengukuran <i>Thermal</i> PMT | 20 |
| Gambar 3. 8. Pengukuran <i>insulating oil</i> PMT | 22 |
| Gambar 3. 9. PMT tampak belakang | 22 |
| Gambar 3. 10. Hasil pengukuran <i>insulating oil</i> | 23 |
| Gambar 4. 1. <i>Pole Cover</i> | 32 |
| Gambar 4. 2. Pelepasan <i>ring segment</i> | 32 |
| Gambar 4. 3. Pelepasan <i>expansion chamber</i> | 33 |
| Gambar 4. 4. Penyetingan <i>oil drain cock</i> | 33 |
| Gambar 4. 5. Pengeluaran oli | 33 |
| Gambar 4. 6. Pelepasan <i>arcing tip</i> | 34 |
| Gambar 4. 7. Pelepasan <i>clamping cylinder</i> | 34 |
| Gambar 4. 8. <i>Insulating cylinder</i> | 35 |
| Gambar 4. 9. Kain penyaring oli | 36 |
| Gambar 4. 10. Penyetingan <i>oli drain cock</i> | 37 |
| Gambar 4. 11. Pengisian oli | 37 |



DAFTAR TABEL

| | |
|--|----|
| Tabel 2. 1. Spesifikasi FLIR TG165 | 8 |
| Tabel 3. 1. Tabel spesifikasi PMT HL3-6 | 12 |
| Tabel 3. 2. Waktu pengerjaan <i>maintenance</i> | 17 |
| Tabel 3. 3. Standar kualitas <i>insulating oil</i> | 24 |
| Tabel 4. 1. Pengukuran <i>thermal</i> PMT | 26 |
| Tabel 4. 2. Pengukuran hambatan isolasi sebelum <i>maintenance</i> | 27 |
| Tabel 4. 3. Nilai hamatan isolasi setelah <i>maintenance</i> | 39 |
| Tabel 4. 4. Arus kebocoran arus yang diizinkan | 40 |