**TITLE: - SOP for Strainer maintenance at Barauni LPG station**

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| **SL. NO.** | **ACTIVITY** | **RESPONSIBILITY** |
| 1 | Once the pressure in DPT-2101/2102/2105/2106 Of Basket strainer STR 2101/2102/2103/2104 respectively, upon choking of basket strainer, reaches 0.5 kg/cm2 or strainer is due for cleaning (once in a year) whichever is earlier, the strainer cleaning is required. | Shift In charge |
| 2 | Upon choking of strainer, the choked strainer is to be taken out of line & the information is to be given to maintenance team. The other strainer in parallel is to be taken in line. | -Do- |
| 3 | Take HOT work permit as per OISD-105. Carry out Job safety analysis. Conduct Toolbox talk. | Maintenance In-charge |
| 4 | Close upstream MOV and downstream MOV of strainer which is under maintenance (MOV-2103 & 2105 for STR-2101, MOV-2104 & 2106 for STR-2102, MOV-2127 & 2129 for STR-2103, MOV-2128 & 2130 for STR-2104) . Ensure Electrical isolation of the upstream & downstream MOVs. | -Do- |
| 5 | Depressurize the strainer by opening the drain line valve & vent line valve of strainer by cold flaring till the pressure inside the strainer reaches zero. Use water monitor/hydrant to disperse LPG during cold flaring. | -Do- |
| 6 | Once the pressure inside strainer zero, close its drain and vent line valves. | -Do- |
| 7 | Purge nitrogen into strainer to 4-5 kg/cm2 through 2 inch flange connection available in upstream piping of strainer. | -Do- |
| 8 | Vent out the nitrogen through 2 inch ball valve in vent line towards cold flare. | -Do- |
| 9 | Repeat the step 7 & 8, 03 times so that strainer become free of LPG traces. | -Do- |
| 10 | Close both drain line valve & vent line valve. Ensure zero pressure in strainer. Start opening the top cover of strainer. | -Do- |
| 11 | Take out the choked basket filter, clean the basket strainer internals and install spare clean basket filter if required. | -Do- |
| 12 | Install the top cover with new SWMG gasket. | -Do- |
| 13 | Purge nitrogen into strainer upto 7 kg/cm2. Carry out soap bubble test to check integrity. | -Do- |
| 14 | Charge the strainer under maintenance with LPG by opening 2 inch ball valve and 2 inch globe valve of bypass line of upstream MOV of strainer gradually. (MOV-2103 for STR-2101, MOV-2104 for STR-2102, MOV-2127 for STR-2103, MOV-2128 for STR-2104). | -Do- |
| 15 | Upon charging the strainer, vent out the nitrogen by opening vent line valve through cold flare. | -Do- |
| 16 | Ensure pure LPG inside strainer. This can be ascertained by extreme cooling effect/icing on the vent line during nitrogen venting. | -Do- |
| 17 | Close vent line valve. | -Do- |
| 18 | Carry out soap bubble test at top cover flange joint to check its integrity. | -Do- |
| 19 | Ensure all work permits are closed, upstream and downstream MOV to be energized and kept in remote mode for further use. | Shift In charge |
| 20 | Facility is to be handed over to operations. | -Do- |

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| RECORDS GENERATED : | 1) | SHIFT LOGBOOK SHEET |
|  | 2) | SHIFT HANDING OVER REGISTER |
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