

7 Minutes of Meeting of Project Team Meetings
in Phase-1

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO

Minutes of Meeting for 1st Project Team Meeting
MM-PTM-1 [06.12.7]

Date	7 (Thursday) December 2006
Time	11:45 ~ 13:00
Place	SHAPWASCO chairman's room
Attendants	[SHAPWASCO : C/P] <i>S. Bayoumi</i> Dr. Salah Bayoumi : Chairman (the Project Manager)
	[Expert Team : The team] Mr. Mashiro Takeuchi : Chief Advisor <i>[Signature]</i> Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Saeki : Water Treatment-1 Mr. Keizo Kimura : Water Treatment-2 Mr. Mitsuhiro Omori : Coordinator Mr. Mohamed Nagi : Facilitator

Following items were discussed and confirmed by the both parties:

1. Counterpart training in Japan

The team transferred the request of JICA to C/P to nominate two trainees (one for UFW reduction activity and one for SOP activity) who will participate in JICA counterpart training to be held in Japan from the end of January to the middle of February 2007. The team handed over the application form for that purpose to C/P and asked to submit an original of the applications to the related organization, if necessary, and a copy to JICA Egypt Office by the middle of this month.

C/P stated that they will nominate two trainees and submit the original of the applications to the Ministry of Foreign Affairs in Egypt and a copy to JICA Egypt Office by December 15.

2. Nomination of staff working full-time with the Japanese Expert Team

The team requested C/P to nominate a head of UFW team and a head of SOP team at SHAPWASCO headquarters (from now on, called as UFW/HQ team and SOP/HQ team) and two staff full-time working with each team for UFW reduction activity and SOP activity. The team also requested that the full-time staff for the Project should be the one who will work as a responsible person in SHAPWASCO in the future.

C/P stated that they will nominate two heads for UFW/HQ team and SOP/HQ team, and two full-time staff working with the team by December 15.

3. Detail activities for Phase-1

The team submitted a work plan including tentative detail activities for UFW reduction and SOP to C/P for their reference and explained the contents to C/P.

C/P understood the explanation by the team and stated that they will examine the contents and inform the team of their work plan by the next week (14th December).

4. Schedule for weekly activities

The team submitted a schedule for weekly activities for the next week (from 9th December to 14th December 2006) so that C/P can follow the activities of the team.

C/P appreciated it and proposed that the activities for the C/P staff be mentioned in the schedule.

The team agreed to do so.

5. Provision of telephone line in the expert team office

The team requested C/P to provide an international telephone line in the team's office.

C/P stated that they will provide temporarily a local telephone line by which the team can communicate with the whole Egypt and they will conduct necessary procedures to get an international telephone line and internet line as soon as possible.

6. GIS maps

The team confirmed with C/P the situation of GIS maps prepared under the USAID assistance.

C/P explained that they discussed with the consultant of Holding Company for Water and Wastewater (HCWW) and confirmed the latest maps of Zagazig City will be available by 14th December and GIS maps for other pilot project areas will be available within two weeks.

(End of the minutes)

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO

Minutes of Meeting for 2nd Project Team Meeting
MM-PTM-2 [06.12.14]

Date	14 (Thursday) December 2006
Time	12:45 ~ 13:30
Place	SHAPWASCO chairman's room
Attendants	[SHAPWASCO : C/P] <i>S. Bayoumi</i> Dr. Salah Bayoumi : Chairman (the Project Manager)
	[Expert Team : The team] Mr. Mashiro Takeuchi : Chief Advisor <i>[Signature]</i> Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Saeki : Water Treatment-1 Mr. Keizo Kimura : Water Treatment-2 Mr. Mitsuhiro Omori : Coordinator Mr. Mohamed Nagi : Facilitator

Following items were discussed and confirmed by the both parties:

1. Progress in general from 9th to 14th December (review of 1st PTM on 7th December)

(1) Application of C/P training in Japan

The team reported to C/P that JICA Egypt office has already received a copy of the application and sent it to JICA headquarters in Japan. The team asked C/P when the original of the application is submitted to the Ministry of Foreign Affairs (MOFA) in Egypt.

C/P stated that it will be delivered to MOFA on 14th December by hands of Mr. Alae El Din Mohamed and Mr. Abd El Shafi and the team confirmed it has been submitted on the same day.

(2) Nomination of head of UFW/HQ team and SOP/HQ team

The team confirmed the following persons have been nominated as the heads of UFW/HQ and SOP/HQ team.

- For UFW/HQ team : Mr. Alae El Din Mohamed
- For SOP/HQ team : Mr. Abd El Shafi *Abd El Aziz*

(3) GIS maps for UFW reduction activity and SOP activity

The team asked the situation of preparing GIS maps for the Project and confirmed whether the available maps are digitalized or not.

C/P stated that the GIS maps currently available in the GIS system of SHAPWASCO are just images but these will be digitalized and those maps will be available with a scale of 1 to 5,000 within the following period:

- Zagazig city : one (1) week
- Other pilot project areas : one (1) month
- Whole governorate : six (6) months

C/P stated that the digital information will include governorate and Markaz boundaries, roads, outlines of buildings, water courses, etc.

(4) Result of meeting with USAID consultant (CH2MHill) on 11th December

The team delivered to C/P the information obtained in the meeting on 11th December with Mr. David Osgood, chief of party of CH2MHill as USAID consultant of HCWW for WWSRP project as follows:

- The contract of the USAID consultant (CH2MHill) with HCWW for WWSRP project has been extended until March 2009.
- The assistance for SHAPWASCO under the WWSRP project has not been completed yet and the consultant is ready to do assistance to SHAPWASCO upon the request from HCWW, if any.
- Permanent licenses for the GIS softwares (ArcEditor and ArcView) have already been given to HCWW. Therefore, SHAPWASCO can request HCWW to transfer it to them.
- A plotter for SHAPWASCO has already been placed an order so that SHAPWASCO will be able to receive it by around January next year.

C/P stated that they will also confirm with HCWW for the transfer of permanent licenses for the softwares and procurement of plotter and other equipment.

(5) Telephone lines for the Expert team office

The team asked the situation of preparation of international telephone line and internet line of which arrangement were agreed by 15th December in the 1st PTM.

C/P stated that this matter will be solved by 17th (Sunday) December.

2. UFW reduction activity (progress and schedule for the next week)

2-1. Review of the progress for the week

The team explained to C/P the progress of UFW reduction activity done this week as follows:

- (1) Data collection for calculating UFW ratio (2005/7 to 2006/6)
- (2) Collection of record of leakage and broken pipes (monthly for each Markaz and Zagazig city)
- (3) Collection of the existing drawings of water distribution pipelines for Hihya Markaz

C/P confirmed the above.

2-2. Schedule for the next week (from 16th to 21st December)

The team explained to C/P the schedule of UFW reduction activity to be done next week from 16th to 21st December as follows:

- (1) Collection of GIS base maps for the pilot project areas (scale : 1/5000)
[Pilot Project Areas]
- Zagazig city

- Zagazig Markaz
- Hihya Markaz
- Ibrahimiya Markaz
- Diarb Nigm Markaz

- (2) Collection of record for leakage points, diameters and type of pipes with leakage
- (3) Collection of the existing drawings of water distribution pipelines for the pilot project areas

C/P confirmed above.

3. SOP activity (progress and schedule for the next week)

3.1 Review of the progress for the week

The team explained to C/P the progress of SOP activity done this week as follows:

- (1) Preparation of field survey on the existing water supply facilities
 - Preparation of check list for field survey of the existing facilities (English) as attached
 - Translation of the check list into Arabic
- (2) Preparation of field survey

C/P confirmed above.

3.2 Schedule for the next week (from 16th to 21st December)

The team explained to C/P the schedule of SOP activity to be done next week from 16th to 21st December as follows:

- (1) Distribution of check list to be filled in beforehand
- (2) Conducting field survey based on the attached schedule.

The team handed over the materials for the above activities to C/P for their reference.

C/P agreed to prepare a covering letter to instruct facility managers to fill in the check list.

4. Equipment to be procured in the Project

The team explained to C/P the equipment procured and used during Phase-1 of the Project.

C/P understood the explanation by the team and stated that they have a desire to be explained by the team prior to the procurement of the equipment after Phase-2 and the team agreed to do so.

5. Frequency of Project Team Meeting (PTM)

C/P proposed to hold the PTM every Thursday (the end of the week) except the absence of the representative of C/P.

The team agreed on the C/P proposal.

(End of the minutes)

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO

Minutes of Meeting for 3rd Project Team Meeting

MM-PTM-3 [06.12.21]

Date	21 (Thursday) December 2006
Time	13:30~14:30
Place	SHAPWASCO chairman's room
Attendants	[SHAPWASCO : C/P] Dr. Salah Bayoumi : Chairman (the Project Manager) <i>S. Bayoumi</i> Eng. Alae El Din Mohamed : Head of UFW/HQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team
	[Expert Team : The team] Mr. Masahiro Takeuchi : Chief Advisor <i>M. Takeuchi</i> Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Saeki : Water Treatment-1 Mr. Keizo Kimura : Water Treatment-2 Mr. Mitsuhiro Omori : Coordinator

Following items were discussed and confirmed by the both parties:

1. Progress in general from 16th to 21st December (review of 2nd PTM on 14th December)

- (1) GIS maps for UFW reduction activity and SOP activity

The team asked C/P for the situation of GIS map preparation of the following city and markazes:

- For Zagazig City
- For Zagazig, Hihya, Ibrahimiya and Diarb Nigm Markaz
- For other Markaz in Sharkia

C/P stated that GIS map for Zagazig City will be available by the middle of next week with tentative GIS software.

- (2) Counterpart training in Japan

The team informed C/P of the current situation of C/P training in Japan and confirmed about the situation of application for the training submitted to MOFA of Egypt.

- Arrangement of the training program in Japan.
The training will be done from 3rd to 22nd February 2007.

C/P stated that they will confirm the current situation of the application with MOFA of Egypt and JICA Egypt office.

- (3) Telephone lines for the Expert team office

The team informed C/P that domestic telephone line in Egypt has become available on Dec. 17

and confirmed the situation of international line.

C/P explained that, although connection of the international line requires the permission of the Minister of Communication according to the telephone company, they are requesting the telephone company to examine whether the line can be connected without the permission of the Minister in case of holding company.

2. UFW reduction activity (progress and schedule for the next week)

2-1. Progress

The team confirmed that the related sections in SHAPWASCO regarding UFW reduction activity are Water Network Department and Customer Service – Hot-line.

The team confirmed that the existing drawings of water distribution pipelines will be provided by Water Network Department and the leakage points will be indicated on the maps by Customer Service – Hot-line.

Both parties confirmed that the following works have been done for UFW reduction activity:

- (1) Collection of the existing water distribution pipeline drawings for the pilot project area. The team requested Water Network Department to indicate the location, diameter and type of pipes and also the location of valves according to the attached sketch.
- (2) Collection of the maps indicating the visible leakage points. The team requested Customer Service – Hot-line to indicate the location of visible leakages with diameters and type of pipes on GIS base map for Zagazig City which is expected to be obtained on Dec.21, 2006.
- (3) Collection of record for visible leakage and broken pipes (monthly for each Markaz and Zagazig city).
- (4) Collection of data for sold water volume, number of working or non-working meters and connection without meters classified per activities (for each Markaz and Zagazig city).
- (5) Collection of record for water charge collected by SHAPWASCO.
- (6) Monitoring the visible leakage place at Zagazig City after receiving telephone call from the subscriber to Customer Service – Hot-line on Dec.18 (refer to photos attached).

2-2. Schedule for the next week (from 23rd to 28th December)

Both parties confirmed that the following works for UFW reduction activity will be conducted next week from 23rd to 28th December.

- (1) Collection of GIS base maps for Zagazig City.
- (2) Collection of the existing water distribution pipeline drawings for the pilot project areas.
- (3) Preparation of maps indicating visible leakage points with diameters and type of pipes for Zagazig City.
- (4) Meeting with HCWW in Cairo for collecting information/data for UFW in the whole water company.

C/P suggested that the pilot districts shall be selected under some criteria in the workshop and the team agreed on it.

3. SOP activity (progress and schedule for the next week)

3.1 Progress

Both parties confirmed that the following works have been done for SOP activity.

- (1) Preparation of check lists for Water Treatment, Fe/Mn removal plants and booster pump stations
- (2) Delivery of the check list to six (6) WTP with the instruction letter form SHP WASCO HQ
- (3) Site surveys on Fe/Mn removal plants and booster pump stations
- (4) List of wells with verification by persons in charge of the branches (except Zagazig City)

3.2 Schedule for the next week (from 23rd to 28th December)

Both parties confirmed that the following works for SOP activity will be conducted next week from 23rd to 28th December.

- (1) Site survey on six (6) water treatment plants
- (2) Compilation of collected information/data

4. Proposal for establishment of a database for "Water Supply Facilities"

The team explained about SOP activity as follows:

- As reported above, for the first step of SOP activity, field surveys on existing facilities are in progress and will be finished for water treatment plants, Fe/Mn removal plants, and booster pump stations in December. Basic information on facilities is collected through site surveys and they are:

- List of Facilities
- Plant location (coordinates by GPS)
- Plant outline including plant configuration with schematic flow diagram
- Basic specifications of the equipment
- Present O&M records and structure
- Drawings documents and pictures

- This information will be reinforced through the SOP activities along their progress and introduction of database is preferable for the effective SOP activity and management.

- As two PCs were setup for the project, we propose the establishment of database for "Water Supply Facilities" by "ACCESS" and assignment of one specialist from SHAPWASCO.

C/P understood the explanation by the team and informed the team that they will nominate Mr. Mohamed Mesbah as the database specialist.

5. Feast and New Year holidays

The team asked C/P when will be the day-off during the coming New Year holidays.

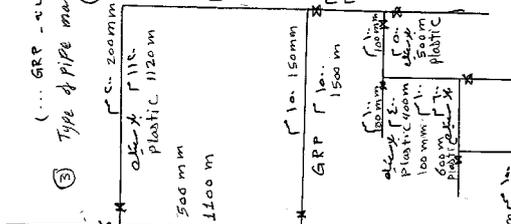
C/P replied that they will take holidays from 29th December 2006 to 2nd January 2007 and the team confirmed it.

(End of the minutes)

Market and Zoning	No. of Meters	Water for GIS	GIS Meter map not required	Customer Service Not-fee	Number of meters	Commercial Dept.
Perms in charge						
Conditions						
1	Shree Shree					
2	Al-Huda					
3	Al-Huda					
4	Al-Huda					
5	Al-Huda					
6	Al-Huda					
7	Al-Huda					
8	Al-Huda					
9	Al-Huda					
10	Al-Huda					
11	Al-Huda					
12	Al-Huda					
13	Al-Huda					
14	Al-Huda					

* Water production volume and sold water volume can not be expanded for each market, because no flow meters provided on the existing main and branch pipelines.
 * Not obtained yet.
 * Obtained already.

Water source -
 1- Pipe diameter - قطر البير
 2- Pipe length - طول البير
 3- Type of pipe material (plastic - steel - concrete - GRP - ...)
 4- Values connected to main net (rooms - shallow box) and that's head pipes
 5- 2" = 50 mm
 4" = 100 mm
 6" = 150 mm
 8" = 200 mm
 10" = 250 mm
 12" = 300 mm



Required meter characteristics for each meter included all the previous data, more over, a sketch to all the local units of markets

No.	Market	Working Meters				Unworking Meters				Connections without meters			
		recorded	unrecorded	connections	Total	recorded	unrecorded	connections	Total	recorded	unrecorded	connections	Total
1	Al-Huda	27,511	477	246	28,234	151	10	3,641	32,224	613	14	0	637
2	Al-Huda	13,396	26,392	87,900	127,688	0	0	0	127,688	0	0	0	127,688
3	Al-Huda	972,248	8,051	10,817	991,116	0	0	0	991,116	0	0	0	991,116
4	Al-Huda	1,880,070	32,779	3,000	1,915,849	0	0	0	1,915,849	0	0	0	1,915,849
5	Al-Huda	59,623	2,104	240	61,967	0	0	0	61,967	0	0	0	61,967
6	Al-Huda	1,481,844	13,399	273,112	1,678,355	0	0	0	1,678,355	0	0	0	1,678,355
7	Al-Huda	3,232	1,537	291	5,060	0	0	0	5,060	0	0	0	5,060
8	Al-Huda	2,450	510	214	3,174	0	0	0	3,174	0	0	0	3,174
9	Al-Huda	1,071,370	14,200	80,744	1,166,314	0	0	0	1,166,314	0	0	0	1,166,314
10	Al-Huda	3,083,137	64,227	202,247	3,349,611	0	0	0	3,349,611	0	0	0	3,349,611
11	Al-Huda	6,566	3,775	1,038	11,379	0	0	0	11,379	0	0	0	11,379
12	Al-Huda	4,372,652	181,744	1,038,411	5,592,807	0	0	0	5,592,807	0	0	0	5,592,807
13	Al-Huda	9,460,311	321,328	321,125	10,102,764	0	0	0	10,102,764	0	0	0	10,102,764
14	Al-Huda	9,664	1,811	529	11,994	0	0	0	11,994	0	0	0	11,994
15	Al-Huda	3,852,244	30,974	562,186	4,445,404	0	0	0	4,445,404	0	0	0	4,445,404
16	Al-Huda	20,022,221	113,840	5,702,671	25,838,732	0	0	0	25,838,732	0	0	0	25,838,732

Obtained by Mr. Mohamed Shams of Commercial Department of SIA/SPWS/CD

List of Meters in Sharika governorate Period from 1/7/2005 to 30/6/2006

Customer activity	Number of customers			Actual sold water		Total		Water sold				Total	
	recorded	unrecorded	connections without meters	recorded meters	unrecorded meters	connection meters*	without meters*	unrecorded meters	unworking meters*	connection meters*	without meters*	unrecorded meters	without meters*
Houses	489,950	28,548	99,866	7,505	623,869	102,765,576	778,083	23,021,987	2,772,750	129,338,396	341,741	50,239,458	
Government	3,706	60	1,875	2,800	8,411	8,889,455	5,312	6,256,046	3,745,594	18,896,407	0	292,041	
Investment	55	1	36	0	92	227,404	50	54,587	0	8,200,041	0	0	
Commercial	15,951	524	3,662	74	20,211	4,286,777	36,027	1,008,353	18,387	5,329,544	0	0	
Utilities	28	0	27	695	750	40,071	0	11,342	2,855,498	2,906,911	0	0	
General Sector	526	4	92	624	113,228	350	35,665	0	149,243	0	0	0	
Total	510,216	27,371	105,558	11,078	653,987	116,302,511	819,822	30,387,990	9,352,229	156,902,542	0	0	

* The flow is estimated according to type of house
 The breakdown over branches should be asked from Eng. Alta

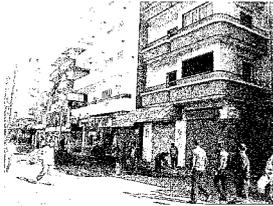
Customer activity	Number of customers			Actual sold water		Total		Water sold				Total	
	recorded	unrecorded	connections without meters	recorded meters	unrecorded meters	connection meters*	without meters*	unrecorded meters	unworking meters*	connection meters*	without meters*	unrecorded meters	without meters*
Houses	488,893	23,597	95,941	874	589,305	10,441,442	2,986,739	36,489,536	341,741	50,239,458	0	0	
Government	4,033	3,752	1,114	8,889	8,114,734	1,200	5,315,750	810,813	14,242,497	0	0	0	
Investment	45	1	36	0	92	227,404	50	54,587	0	8,200,041	0	0	
Commercial	16,796	280	6,808	23,884	6,149,998	48,400	1,514,954	7,167	7,720,128	0	0	0	
Utilities	237	0	50	446	733	706,320	0	63,701	3,065,009	3,835,000	0	0	
Total	490,004	23,877	106,552	2,434	622,867	25,637,413	3,016,339	43,400,011	4,224,730	76,278,483	0	0	

Repairing visible leakage at Zagazig City on DEC.18,2006

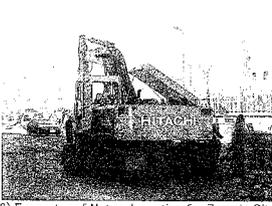
December 17, 2006 Rev.1



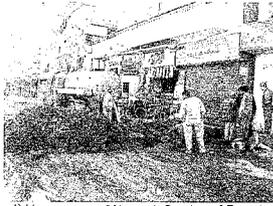
1) Water visible leakage at Zagazig City
Time : 11:00 (12:00 received call) at 11:15am
Address : 2nd street/madaya
District in front of fire fighting station
Excavation for repair finished around 12:00



2) 2 inch pipe for house connection replaced



3) Excavator of Network section for Zagazig City



4) Vacuum car of Network Section of Zagazig



5) One Eng, one SV & three workers



6) 6 inch water main

Schedule of Field Survey on Water Supply Facilities

111 Water Treatment Plant

	Plant Name	Markaz	Delivery of Check List	Date of Survey
1	Zagazig	Zagazig City	Dec. 16	Dec. 28
2	Abassa	Abu Hamad	Dec. 16	Dec. 23
3	New Faqus	Faqus	Dec. 16	Dec. 24
4	Old Faqus	Faqus	Dec. 16	Dec. 24
5	El Husainia	El Huseinia	Dec. 16	Dec. 26
6	Sangaha	Kafr Saqr	Dec. 16	Dec. 25

222 Fe/Mn Removal Plant

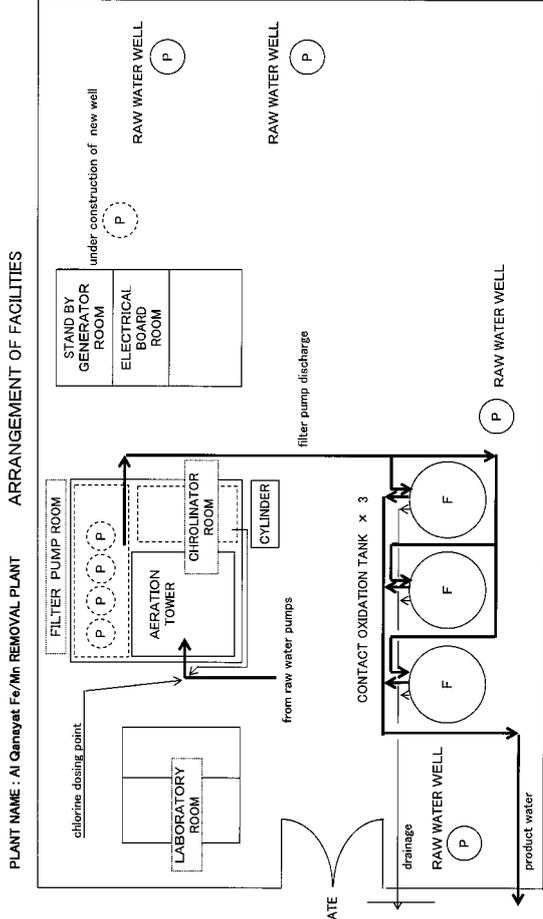
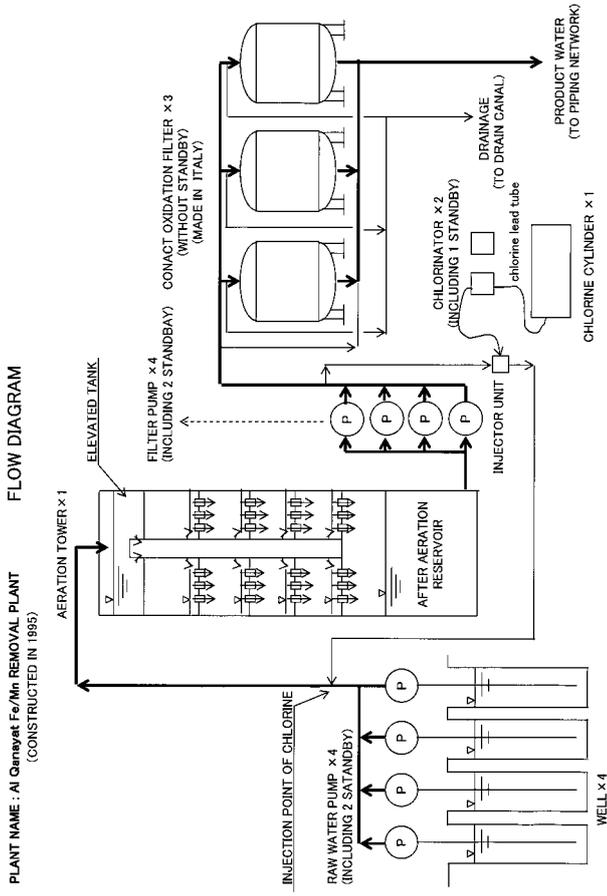
	Plant Name	Markaz	Date of Survey
1	Qinayat	Zagazig Markaz	Dec. 9
2	Mashtool El Sooq	Mashtool El Sooq	Dec. 17
3	Shanan	Abu Kabier	Plant was closed.
4	El Adlia	Bilbais	Dec. 19
5	Kafr Farag	Menia Alqamah	Dec. 17
6	Melames	Menia Alqamah	Dec. 17
7	El Seds	Ibrahimiya	Dec. 20
8	Abu Metanna	Diarb Nigm	Dec. 20

333 Booster Pump Station

	Plant Name	Markaz	Date of Survey
1	Zagazig Markaz	Zagazig Markaz	Dec. 21
2	West Bilbais	Bilbais	Dec. 19
3	Faqus	Faqus	Dec. 24

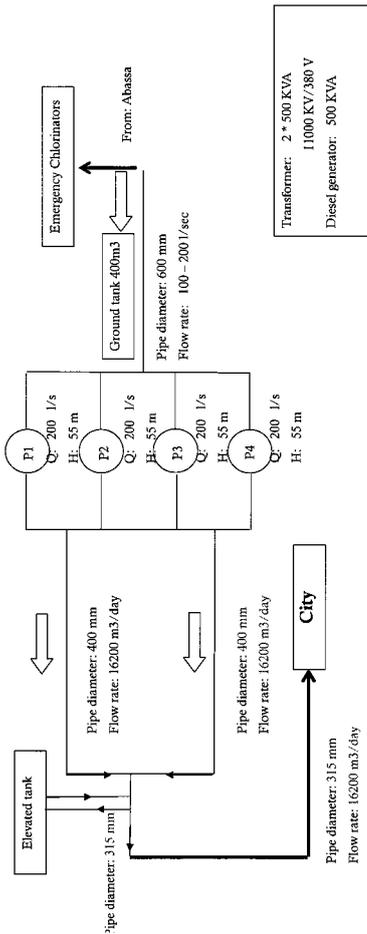
444 Workshop in Zagazig

	Plant Name	Markaz	Date of Survey
1	Zagazig Workshop	Zagazig City	Dec. 19



December 19, 2006
 Name of Booster Pump Station: West Bahis Booster Pump Station Manager: Mr. Abd Allah El Said Yousef

Country of origin of main equipment: Pump Technoslovakia , Motor Technoslovakia
 Operation Year: August 14 , 2006



1

2

Operation
 Manager: Mr. Abd Allah El Said Yousef, Operator (Supervisors) 1, (Operators) 3
 Operation hour: 24 h

Operation Manual: Don't exist

Operation Records: Exist

Communication system: Don't exist

Operation at black-out: A stand-by Generator 500 KVA
 Hint: The Generator works every 3 days to recharge the battery

Maintenance
 Manager: Ms. Anaa Olyaan, Technician: There is a maintenance team exist in a Maintenance Centre for all Bahis stations in the Branch Office
 Maintenance Manual: Don't exist

Maintenance Records: Exist, overhaul record: Don't exist

Spare parts list: There are some spare parts in the central store in the branch

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The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO

Minutes of Meeting for 4th Project Team Meeting

MM-PTM-4 [06.12.27]

Date	27 (Wednesday) December 2006	Signature
Time	15:00~16:00	
Place	SHAPWASCO chairman's room	
Attendants	[SHAPWASCO : C/P] Dr. Salah Bayoumi : Chairman (the Project Manager) Eng. Alaa El Din Mohamed : Head of UFW/HQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team	<i>S. Bayoumi</i>
	[Expert Team : The team] Mr. Masahiro Takeuchi : Chief Advisor Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Saeki : Water Treatment-1 Mr. Keizo Kimura : Water Treatment-2 Mr. Mitsuhiro Omori : Coordinator	<i>[Signature]</i>

1. Progress in general from 23rd to 27th December (review of 3rd PTM on 21st December)

(1) GIS maps for UFW reduction activity and SOP activity

The team asked C/P for the latest schedule of GIS maps.

C/P stated that the consultant who provides GIS maps will be selected 28th December and the consultant will submit the GIS maps for Zagazig city after the New Year holidays (around 8th January)
 C/P informed the team that the license of the software for GIS will be transferred soon after the holidays.

(2) Results of the meeting with the Chairman of HCWW

The team informed C/P of the results of the meeting with the chairman of HCWW on 24th December as follows:

1) Telephone lines for the Expert team office

The team confirmed with Chairman of HCWW that permission from the Minister of Communication is not required when international telephone line is installed in SHAPWASCO and the chairman will issue a supporting letter to SHAPWASCO.

2) UFW data for the water companies

The team received the UFW data for 12 water companies from HCWW on 26th December.

3) Information about UFW reduction projects

The team got information on the leakage detection project in Nasr City which will be done under the

assistance from Italian Government including staff training and leakage equipment procurement.

4) Master plan study for water supply and sewerage for HCWW

The team got information on the master plan study project for water supply and sewerage system for HCWW.

2. UFW reduction activity (progress of this week and schedule for the next week)

2-1. Progress

Both parties confirmed that the following works have been done for UFW reduction activity done this week:

- The team confirmed the collection of the existing water distribution pipeline sketches for the pilot project area.
- The pipeline sketches for other markazes except Awlad Sakr and Abu Hamad have been confirmed and received. The sketches are indicating the general layout of the pipelines, diameters, construction date, material of pipes, and the location of wells and surface WTP as well.
- The Customer Service - Hot-line is preparing a table indicating the location of visible leakages with diameters and type of pipes. When the GIS base map for Zagazig City is available, the location could be located using this table with the assistance of the customer service personnel.
- Number of customers classified per conditions of customer's water meter has been collected (for each Markaz and Zagazig city).
- A list of criteria to be used when selecting the pilot districts has been prepared as a draft. A primary selection has been conducted using pilot area network sketches. The personal contact with the networks department in pilot area shall confirm the selection.

C/P stated that they will check the list of criteria and inform the team of their comments later.

2-2. Schedule for the next week (from 30th December 2006 to 4th January 2007)

Both parties confirmed that the following works for UFW reduction activity will be conducted next week from 30th December 2006 to 4th January 2007.

- Collection of GIS base maps for Zagazig City (scale : 1/5000).
- Collection of sketches for the existing water distribution pipeline of all the markazes.

3. SOP activity (progress of this week and schedule for the next week)

3.1 Progress

Both parties confirmed that the following works have been done for SOP activity this week:

- Completion of site surveys on water treatment plant according to the attached schedule.
- Completion of "List of Water Supply Facilities" as a first product of the SOP activity.

For the list of water supply facilities, C/P requested the team for the final confirmation by SHAPWASCO as the latest information and the team agreed on that.

The team requested C/P to clarify the situation of some water supply facilities operated by others through NOPWASD as follows:

- El Seds Fe/Mn Removal Facility in Ibrahimiya (Arab Contractor)
- New Faqus WTP in Faqus (Industrial and Mining Ministry)
- Kafr Saqr WTP in Kafr Saqr (Industrial and Mining Ministry)
- Huesinia WTP in Huesinia (Arab Contractor)

C/P explained that there are some historical matters of this issue, but as a result, all the facilities will be handed over to SHAPWASCO by June 2007. The team understood that as far as the schedule will be kept, SOP activity of the Project can be managed as the model facility may be selected from the facilities operated by SHAPWASCO.

3.2 Schedule for the next week (from 30th December 2006 to 4th January 2007)

Both parties confirmed that the following works for SOP activity will be conducted next week from 30th December 2007 to 4th January 2007.

- (1) Compilation of collected information/data
- (2) Visit to Dakhalia Water Company for surveying the MIS on 4th January 2007

4. Next PTM

The both parties confirmed that the next PTM will be held on 9th January 2007, since most of the expert team members except Mr. Seno leave Egypt by 10th January 2007.

(End of minutes)

- 3 -

3. UFW Team for Pilot Project

The team requested C/P to start selection of two UFW teams, one for Area-1 (Zagazig City and Zagazig Markaz) and one for Area-2 (Hihya, Ibrahimiya and Diarb Nigm Markazes) consisting of 5 members (1 engineer, 2 technician, 1 accountant and 1 meter reader).

C/P agreed to do so.

4. UFW reduction activity (progress of this week and schedule for the next week)

4-1. Progress

Both parties confirmed that the following works have been done for UFW reduction activity done this week:

- (1) The pipeline sketches for the remained Awlad Sakr and Abu Hamad have been received in this week. Therefore, the sketches for all markazes and Zagazig City have been received as a draft.
- (2) A primary selection works for selecting the pilot project districts are continued using network sketches for pilot area.
- (3) Surveying maps with scale 1:100,000 for whole Sharkia were obtained and preparation of drawing for main network from main WTP started.

4-2. Schedule for the next week

Both parties confirmed that the following works for UFW reduction activity will be conducted next week from 10th January 2007 to 18th January 2007.

- (1) Starting to input the data of transmission and distribution main pipelines more than 300mm diameter into GIS base maps for Zagazig City (scale : 1/5000).
- (2) Meeting with FDWSC for obtaining information on UFW reduction activity in Fayoum.
- (3) Meeting with Daqahilia PWSCO for obtaining information on UFW reduction activity in Daqahilia.

5. SOP activity (progress of this week and schedule for the next week)

5-1. Progress

Both parties confirmed that the following works have been done for SOP activity this week:

- (1) Surveys on existing water supply facilities
- (2) Visiting Daqahilia PWSCO on MIS
- (3) Meeting with TMG

5-2. Schedule for the next week

Both parties confirmed that the following works for SOP activity will be conducted next week from 10th January 2007 to 18th January 2007.

- 2 -

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO

Minutes of Meeting for 5th Project Team Meeting MM-PTM-5 [07.1.9]

Date	9 (Tuesday) January 2007	Signature
Time	12:30~13:30	
Place	SHAPWASCO chairman's room	
Attendants	[SHAPWASCO : C/P] Dr. Salah Bayoumi : Chairman (the Project Manager) Eng. Alae El Din Mohamed : Head of UFW/HQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team	<i>S. Bayoumi</i>
	[Expert Team : The team] Mr. Masahiro Takeuchi : Chief Advisor Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Sasaki : Water Treatment-1 Mr. Keizo Kimura : Water Treatment-2 Mr. Mohamed Nagi : Facilitator	<i>[Signature]</i>

1. Progress in general from 3rd to 8th January (review of 4th PTM on 27th December, 2006)

(1) GIS maps for UFW reduction activity and SOP activity

The team asked the current situation of GIS map preparation. C/P stated that it will take some more time to determine the company for providing GIS maps because they have received several offers and they have to evaluate the contents and offered price.

C/P requested the team to help C/P for the evaluation and the team agreed to do so.

(2) International telephone for the expert team office

The team confirmed that a supporting letter from SHAPWASCO is required for getting the international telephone line in the expert team office and it will take two weeks to finalize after the submission of application.

2. Equipment to be procured in Phase - 2

The team informed C/P, for their reference, of the equipment to be procured for UFW/SOP activities for the Project in Phase -2 and submitted the attached sheet (**Attachment-1**).

C/P requested the team to evaluate the contents, quantity and specification based on the analysis of the current situation done in Phase-1 and the team agreed to do so.

- 1 -

- (1) Surveys on existing water supply facilities are continued to remaining BPS and wells
- (2) Visiting NOPWASD HQ in Cairo and requesting system drawings of the existing water supply facilities
- (3) Preparation of "Water Supply Facility Database"
- (4) Inquiry to TMG of survey/analysis/cost estimate for the repair work of flow meters
- (5) Short break of Japanese SOP experts until February 16.

6. Items to be discussed in PTM

6-1. List of existing Water Supply Facilities of SHAPWASCO

Both sides confirmed the list of the existing water supply facilities of SHAPWASCO which was finalized by SOP team as attached copy (**Attachment-2**).

6-2. Flow rate measurement in WTP

The team explained the situation of the existing stationary type flow meters as follows:

Based on the understanding that the flow rate measurement at raw water intake and production in WTP is keen issue on O&M management improvement, budget for the procurement of maximum twenty one (21) ultrasonic flow meters will be prepared in the project.

Site surveys also showed that none of measurement is done in the field operation although there is good news of the flow meter in Zagazig WTP having being repaired recently.

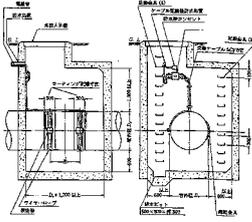
The team confirmed with C/P for understanding of SHAPWASCO on this activity to finalize the budget allocation as follows:

Measurement instruments and indicators will be provided under the Project.

SHAPWASCO shall provide necessary reinforced concrete manholes as shown in the drawing below (typical cross sections) and installation work including electricity power supply.

Locations and details of new stationary type flow meter installation will be discussed this February after the field surveys are completed.

- 3 -



6-3. O&M after handing over the facilities operated by NOPWASD

The team confirmed with C/P the following:

In the previous PTM (December 27, 2006), SHAPWASCO explained all the water supply facilities currently operated by NOPWASD will be handed over to SHAPWASCO by June 2007. For the referring information to prepare the action plan for SOP activities, O&M structure after handing over, "self O&M" or "OM&T Contracting-out" may be clarified. Expert team understands that Holding Company is encouraging to utilize private OM&T contractor for the efficient management.

C/P stated that basic policy of SHAPWASCO is to do operation and maintenance by their own staff in accordance with the presidential decree for establishment of holding company.

6-4. System drawings of WTP

Both parties confirmed the following about the system drawings of WTP.

For SOP activities, system drawings, i.e. layout, flow chart, P&ID are essential but these drawings are not kept at all the plants. Before the preparation of action plan of SOP activities, possibility of obtainment of these system drawings and operation manuals from NOPWASD shall be officially confirmed. If not available, SOP activity must start from the scratch to prepare these drawings by ourselves

6-5 Visit to Daqahilia PWSCO on MIS

SOP team and MIS/GIS members of SHAPWASCO (total nine engineers) visited DAPWASCO in Mansoura and got useful information and suggestions for the future SOP activities and MIS establishment. Expert team and SOP/HQ team prepared visiting memos respectively as attached (Attachment-3).

6-6. Requesting TMG a survey/cost estimation for flow meters repair in WTP

The project team (the team and C/P) received a TMG representative on January 8, 2007 and TMG explained that as one of the company services, they can conduct a survey on stationary flow meters in out-of-order (differential pressure measurement type) at the existing WTP and report the required spare parts and repair work with cost estimate.

The project team proposed to accept their proposal and to apply the survey by TMG for the two WTP's of Zagazig and Abassa by issuing attached letter from SHAPWASCO (Attachment-4) and C/P accepted it.

(End of minutes)

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO

Minutes of Meeting for 6th Project Team Meeting

MM-PTM-6 [07.2.18]

Date	18 (Sunday) February 2007	Signature
Time	10:00~11:00	
Place	SHAPWASCO chairman's room	
Attendants	[SHAPWASCO : C/P] Dr. Salah Bayoumi : Chairman (the Project Manager) Eng. Abd El Hakeem Kamhawi : C/P Project Facilitator	<i>S. Bayoumi</i>
	[Expert Team : The team] Mr. Masahiro Takeuchi : Chief Advisor Mr. Noboru Sacki : Water Treatment-1 Mr. Keizo Kimura : Water Treatment-2 Mr. Mitsuhiro Omori : Coordinator Mr. Mohamed Nagi : Facilitator Dr. Mohamed Sobhy : UFW Reduction Activity	<i>[Signature]</i>

4. Current Situation of Master Plan Study by Local Consultant

The team asked the current situation of Master Plan Study by a local consultant under EU's assistance.

C/P stated that selection of the local consultant will be finished by the end of this week (22nd of February). C/P informed the team that the consultant will start their work on 1st of March 2007 and will complete within one year.

(End of minutes)

1. Arrival of Japanese Experts

The team informed C/P that four Japanese Experts (Mr. Takeuchi, Mr. Saeki, Mr. Kimura and Mr. Omori) arrived in Zagazig on 16th of February 2007 and started their activity from 17th of February 2007.

2. Proposed Schedule of Action Plan

The team submitted a proposed schedule for formulating Action Plan (A/P) for UFW Activity and SOP Activity as attached herewith.

C/P confirmed the schedule.

C/P requested the team to prepare a detailed schedule of the week, during the period which workshops are held and A/P is formulated.

The team agreed to prepare the detailed schedule for the week.

3. Current situation of GIS maps

The team asked C/P the current situation of GIS map preparation.

C/P stated that they have already received a license of Arcview, digital maps (1 to 5,000) of Zagazig City and a server.

Proposed Schedule of Formulating Action Plan for UFW Reduction Activity and SOP Activity

Activity	Work Description	February 2007							March 2007						
		Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
UFW	Organizing two (2) UFW teams, one from Zagazig City and one from Hihya Mariutaz Organizing UFW teams from other Mariutah than Zagazig City and Hihya Mariutaz Selection of candidate areas as pilot project sites: 8 candidate areas from Zagazig City and 5 areas from other 4 Mariutahs Materials for Action Plan (AP) Workshop by Expert Team Workshop and Formulation of AP Selection of Model Facilities (MF) Organizing task force for formulating AP Materials for AP Workshop by Expert Team Workshop and Formulation of AP Submission of Draft AP to PTM Comments from PTM Technical Committee (TC) SHAPWASCO, NOPWASD, UFW Teams, SOP Teams, Japanese Expert Team and JICA (Egypt Office) Workshop to be held internally in SHAPWASCO Project Progress Report 1 (PPR1) A/P, Action Plan, PTM, Project Team Manager, MF - Model Facility														
SOP															
General															

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO

Minutes of Meeting for 7th Project Team Meeting
MM-PTM-7 [07.3.3]

Date	3rd (Saturday) March 2007	Signature
Time	11:00~13:00	
Place	SHAPWASCO chairman's room	
Attendants	[SHAPWASCO : C/P] Dr. Salah Bayoumi : Chairman (the Project Manager) Eng. Alae El Din Mohamed : Head of UFW/HQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team Eng. Abd El Hakeem Kamhawi : C/P Project Facilitator [Expert Team : The team] Mr. Masahiro Takouchi : Chief Advisor Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Saeki : Water Treatment-1 Mr. Keizo Kimura : Water Treatment-2 Mr. Mitsuhiro Omori : Coordinator Mr. Mohamed Nagi : Facilitator Dr. Mohamed Sobhy : UFW Reduction Activity Mr. Mahmoud Khalaf : SOW Activity	<i>S. Bayoumi</i> <i>[Signature]</i> <i>[Signature]</i>

1. Arrival of Japanese Expert

The team informed C/P that one Japanese Expert (Mr. Seno) arrived in Zagazig on 26th of February 2007 and started his activity from 27th of February 2007.

2. Progress from 27th February to 1st March

The team reported C/P about workshops for UFW reduction activity and SOP activity which were done last week (from 24th to 28th February), and formulation of action plans for both activities as follows:

The head of UFW/HQ team and SOP/HQ made a presentation of the action plan of UFW reduction activity and SOP activity, respectively.

- Workshop for action plan of UFW reduction activity
Workshops for formulating action plan of UFW reduction activity were held on 24th and 25th of February, 2007, where there were 31 attendants from the whole SHAPWASCO branch.
- Formulation of action plan for UFW reduction activity

Attachment

The team and UFW/HQ team prepared collaboratively an action plan for UFW reduction activity and submitted the draft action plan to C/P.

- Workshop for action plan of SOP activity
Workshops for formulating action plan for SOP activity were held from 26th to 28th of February, 2007.
- Preparation of action plan for SOP activity
The team and SOP/HQ team prepared collaboratively an action plan for SOP activity and submitted the draft action plan to C/P.

3. Request from the team to C/P for UFW reduction activity

- Preparation of GIS maps
The team requested to C/P to start preparation of GIS maps (1 to 5,000) for pilot projects which will start from July 2007.

C/P stated that software and hardware are ready except a plotter; however, GIS center staff needs training for inputting pipeline data into GIS map.

The team requested C/P to do training of the staff and prepare at least GIS maps for the networks of Zagazig City by the end of June 2007.

C/P requested the team to assist the training of the staff and the team agreed to do so within their capability.

- Training of UFW teams at Mostrod Training Center
The team requested to C/P to do training of nominated staff (engineers and technicians) for UFW teams of the whole SHAPWASCO at Mostrod Training Center by the end of April 2007.

C/P agreed to do so.

4. Request from the team to C/P for SOP activity

The team requested C/P as mentioned in the attached sheet.

C/P agreed to the proposal by the team.

5. Next PTM

The team proposed the next PTM will be held on 7th March 2007 for preparation of Technical Committee and C/P agreed it.

(End of Agenda)

Proposal on enlarging SOP/HQ Team and organizing SOP/MF teams

During the workshop discussion on the organization of SOP activity, following points were raised to be proposed.

- Full-time Members of SOP/HQ Team
 - Engineer Abd El Shafi Abd El Aziz, Head of the Team (appointed)
 - Engineer Mohamed Mesbah, Database (appointed)
 - Chemist Mohamed Osama Ahmed (proposed)
For SOP team organization for model facilities, it is clarified that water quality control is quite important issue but there is no proper chemist in the facilities except Zagazig and Abbasa water treatment plants.
 - Autocad Operator (proposed)
For the preparation of the system drawings of the facilities, one cad operator is requested in SOP/HQ team while computer and software can be arranged by the Project.

- Part-time Members of SOP/HQ Team
Taskforce members selected for action plan formulation were very constructive and eager to SOP activity. Therefore, Expert Team would like to propose the enlargement of SOP/HQ team by adding part-time member as follows;

Mr. Amier Rezk Youssef	Water Department Manager, Head Office
Mr. Nagi Labib Abd El Sayed	Hihya WTP Manager
Mr. Mohamed El Saied Abd El Kader	Kafri Saqr WTP Manager
Mr. Samir Ghareib	Abbasa WTP Manager
Mr. Ibrahim Noufal	El Husseinia WTP Manager

- Head of SOP/Model Facility Team
According to the selection of model facilities, appoints of heads of them are kindly requested officially while members of the teams will be recommended in due course.

<u>Zerai Well Station SOP activity</u>	
Mr. Aly El Mossalamy	Well Stations Manager in Zagazig City
<u>Menia Al Qamah Fe/Mn Plant SOP activity</u>	
Mr. Emam Abd El Mawgoud	Menia Al Qamah Fe/Mn Plant Manager
<u>Bilbais BPS SOP activity</u>	
Mr. Mohamed El Sayed Abd El Hameed	Bilbais BPS
<u>New Faqus WTP SOP activity</u>	
Mr. Ahmed Al Ghatet	New Faqus WTP Manager
<u>Well Monitoring</u>	
Mr. Gamal Abd El Hameed Morsi	Well Stations Department, Head Office

8 Minutes of Meeting of Project Team Meetings
in Phase-2

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO (Phase-2)

Minutes of Meeting for 1st Project Team Meeting for PH-2
MM-PTM2-1 [07.5.2 -5.3]

Date	2 nd May (Wednesday) and 3 rd May (Thursday) 2007	Signature
Time	2 nd May 15:30~16:30 3 rd May 13:15~14:00	
Place	SHAPWASCO chairman's room	
Attendants	<p>[SHAPWASCO : C/P] Dr. Salah Bayoumi : Chairman (the Project Manager) Eng. Alae El Din Mohamed : Head of UFW/HQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team Eng. Abd El Hakeem Kamihawi : C/P Project Facilitator</p> <p>[Expert Team : The team] Mr. Masahiro Takeuchi : Chief Advisor Mr. Masatoshi Seno : UFW Reduction Mr. Akhiko Okazaki : Leakage Detection Mr. Noboru Saeki : Water Treatment-1 Mr. Nobuyuki Iijima : Well Monitoring Mr. Mitsuhiro Omori : Coordinator Mr. Mohamed Nagi : Facilitator Mr. Mohamed Adam : GIS Engineer</p>	<p>S. Bayoumi</p> 

1. Request from the team to C/P for UFW reduction activity

(1) GIS base maps for water distribution networks drawings

The team asked to C/P about the situation of GIS base maps for the following pilot project areas:

- ◆ Zagazig City
- ◆ Zagazig Markaz
- ◆ Hihya Markaz (including Hihya City)
- ◆ Ibrahimiya Markaz (including Ibrahimiya City)
- ◆ Diarb Nigm Markaz (including Diarb Nigm City)

C/P stated that the progress for GIS maps is as follows:

- ◆ Zagazig City is ready.
- ◆ Ibrahimiya City is ready.
- ◆ Diarb Nigm City is under review.
- ◆ Hihya City is ready.

(2) Preparation of GIS maps for water distribution networks

The team requested C/P to start preparation of GIS maps (1 to 5,000) for water distribution networks which will be used for the Pilot Project starting from the beginning of July 2007. As UFW reduction team has to start the preparation of GIS maps as soon as possible, three permanent staff for the preparation of GIS maps should be assigned from C/P. Two persons from C/P have to be nominated as trainees since the training will be started from 6th May at SHAPWASCO GIS Center. The training will be done by a GIS engineer to be employed by the team. The tentative schedule for the training of GIS staff of C/P and the preparation of GIS maps of the Pilot Project Sites is shown on the attached schedule (**Attachment-1**).

C/P confirmed the schedule proposed by the team. C/P stated that they will nominate at least two staff for GIS.

(3) Procurement of equipments for GIS

The team requested C/P to procure a plotter and other required equipment (scanner) for preparation of GIS drawings.

C/P stated that they will make necessary arrangement for procurement of those equipments within one week.

(4) Training of UFW teams at Mostrod Training Center

The team requested C/P to do training of nominated staff (engineers and technicians) for UFW teams of the whole SHAPWASCO at Mostrod Training Center.

C/P stated that they will conduct training of UFW team according to the attached schedule (**Attachment-2**) and the team confirmed it.

(5) Internal workshop for starting UFW reduction activity in Phase-2

The team proposed to C/P that internal workshops for starting UFW reduction activity in Phase-2 should be held on 17th May prior to minimum night flow survey at nominated candidate areas for selecting Pilot Project Sites.

C/P confirmed it.

(6) Field survey for preparation of leakage (or minimum night flow) survey

The team and C/P UFW team started field survey of the candidate areas from 26th April 2007. The field survey for the candidate areas will be completed by 16th May 2007.

C/P confirmed their activity.

(7) Progress of Master Plan Study by Local Consultant

The team asked the progress of Master Plan Study by a local consultant under EU's assistance.

C/P stated that the local consultant (Engineer Office for Sanitary and Civil) has already been selected by SHAPWASCO and the consultant started their services from the last week of April.

The team proposed to have a coordination meeting with the local consultant when required and C/P agreed it.

2. Request from the team to C/P for SOP activity

(1) Follow-up work requested by the team this March

The team confirmed the progress of the follow-up works requested by the team when the team left Egypt this March (refer to **Attachment-3**).

C/P stated that some items have been made progress (data collection). The team proposed that they will make a survey and clarify the progress of data collection by the next PTM.

(2) Internal workshop for starting SOP activity in Phase-2

The team proposed to C/P that internal workshop for starting SOP activity in Phase-2 should be held around 20 May 2007.

C/P confirmed it.

3. Other request from the team

Office furniture

The team requested C/P to provide the team with enough furniture for 16 Japanese and Egyptian experts as follows:

- > Desks and chairs for 16 persons, 2 big cabinets for keeping documents and 1 drawer for keeping stationery, etc.

C/P agreed to provide the team with the above furniture.

4. Next PTM

The team proposed the next PTM should be held on 9th May 2007 and C/P agreed on it.

Attachment:

1. Tentative Schedule for GIS Staff Training and Preparation of GIS Map for UFW Reduction Activity
2. Training Schedule for UFW Team of SHAPWASCO
3. Follow-up Works to be done by SOP/HQ Team during the absence of JICA Expert Team

(End of the Minutes)

MM-PTM2-1(4/7)

Attachment-1

Tentative Schedule for GIS Staff Training and Preparation of GIS map for UFW Reduction Activity

Item	GIS Staffers schedule	2 nd Week							3 rd Week							Remarks	
		Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat		
Start-up on the current situation of GIS Center of C/P																	GIS Staff of Evaluation of GIS staff and software installation of the data
To receive Training Manual and Preparation of GIS Center of C/P																	GIS Training Center of C/P
To receive GIS Training Course																	GIS Training Center of C/P
GIS and data entry for the Pilot Project Sites																	Some data entry by using GIS software for GIS using prepared data Areas in Zagazig, Diarb Nigm, Ibrahimiya, Hihya, East A. West and containing GIS Training Center of C/P
To receive GIS maps by C/P																	GIS Training Center of C/P

2007/03/14

Attachment-3

Follow-up Works to be done by SOP/HQ Team during the absence of JICA Expert Team

In order to accelerate the SOP activities, Expert Team kindly request Mr. Abd El Shafi and SOP/HQ Team to carry on the following works during the absence of experts.

1. Follow-up of the first round SOP/MF meetings

We have conducted "First SOP/MF team meeting" at all the five model facilities from March 6 to March 12 at the following facilities. It was agreed to start SOP activity and specific detail activities. Therefore, this matter shall be followed up by the counterpart team.

- March 6 at New Faqus WTP
 - Prepare list of available drawings and manuals of Kafir Saqr (system of Kafir Saqr is same as New Faqus and to be utilized to SOP activity in New Faqus)
- March 8 at Abbasa WTP
 - Prepare a list of the collected drawings and manuals of Zagazig WTP (system of Zagazig is almost same as Abbasa and useful to SOP activity in Abbasa)
 - Copies of drawings returned from Dr. Ahmed Fadel were made. List of drawings shall be prepared
- March 10 at Zeraa Well Station
 - Piping route drawing and list of mechanical equipment was already prepared by Well Station side.
 - Maintenance book used in the well station was provided for the project.
 - Cable route drawing and list of electrical equipment shall be prepared as agreed.
- March 12, at Bilbais BP and Kafir Farag FMRP
 - Preparation of brief reports for the results of Kafir Farag and West Bilbais including attendance and record of activities
 - Prepare a list of available drawings and manuals for Kafir Farag FMRP
 - Prepare a list of available drawings and manuals for West Bilbais WTP

2. Preparation of one book shelf for keeping the collected information

- Collected information is all important and shall be kept in order. One big shelf is needed.

3. Collection of existing operation record forms

- Collect forms in Headquarters for quarterly report and usual management
- Collect forms in the facility sites (some of them collected)
- Prepare operation record forms (for discussion)

Training Schedule for UFW Team of SHAPWASCO

Item	May 07							Training center	Remarks
	Sat	Sun	Mon	Tue	Wed	Thu	Fri		
Internal Workshop							☆		
Theoretical training								SHAPWASCO	31 persons - (2 persons from each Branch + head of UFW team)
OUT								Mositol	12 Persons - (Head of UFW team + 3 from Zagazig city + 2 from Zagazig Minkase + 2 from Ikhin + 2 from Ibrahimb + 2 from Darab Nagan)

Attachment-2

MM-PTM2-1(7/7)

MM-PTM2-2(1/8)

4. Water quality control

- Collect existing or prepare (if not available) written procedures of water quality control of the water supply facilities in SHAPWASCO although forms of water quality record were provided to the project.

5. Database

Carry on the preparation of first step database for existing water supply facilities to which we have conducted site surveys and incorporated all the information collected.

- Continue preparation of database system
- Prepare satellite images of the model facilities by "Google Earth"
- Input data collected

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO (Phase-2)

Minutes of Meeting for 2nd Project Team Meeting for PH-2

MM-PTM2-2 [07.5.9]

Date	9 th May (Wednesday) 2007	Signature
Time	9 th May, 9:30~10:30	
Place	SHAPWASCO chairman's room	
Attendants	[SHAPWASCO : C/P] Dr. Salah Bayoumi : Chairman (the Project Manager) Eng. Alae El Din Mohamed : Head of UFW/HQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team	S. Bayoumi
	[Expert Team : The team] Mr. Masahiro Takeuchi : Chief Advisor Mr. Masatoshi Seno : UFW Reduction Mr. Akihiko Okazaki : Leakage Detection Mr. Noboru Saeki : Water Treatment-1 Mr. Nobuyuki Iijima : Well Monitoring Mr. Mitsuhiro Omori : Coordinator Mr. Mohamed Nagi : Facilitator Mr. Mohamed Adam : GIS Engineer	

1. General

(1) Arrival of Japanese experts

The team reported to C/P that following Japanese experts arrived in Egypt on 2nd May 2007 and started their work in Zagazigs from 3rd May 2007.

1. Mr. Noboru Saeki : Expert for SOP activity
2. Mr. Okazaki : Expert for leak detection
3. Mr. Nobuyuki Iijima : Expert for hydrogeology (well monitoring)

(2) Furniture for expert's office

The team received one working desk and one drawer this week.

2. UFW reduction activity (progress of this week and schedule for the next week)

2-1. Progress

The team and UFW/HQ team reported the progress as follows:

(1) UFW Action-2

Field survey of all the candidate area will be conducted within this week. This survey is for determining the location of flow meter to conduct a minimum night flow (leakage) survey and confirming the conditions of valves to be closed for isolation of the candidate

area.

1. Zagazig-East : 5 areas
2. Zagazig-West : 5 areas
3. Zagazig Markaz : 5 areas
4. Hihya Markaz : 5 areas
5. Ibrahimiya Markaz : 5 areas
6. Diarb Nigm Markaz : 5 areas

(2) UFW Action-4

GIS training is being conducted according to the schedule submitted in the previous (1st) PTM.

2-2. Schedule for the next week

The team and C/P UFW team explained the schedule for the next week as follows:

(1) UFW Action-2

- > Holding workshop for UFW team on 17th May to confirm the method and schedule of leakage survey of the candidate areas and following pilot project for the selected area.
- > Preparation for leakage survey of the candidate areas.

(2) UFW Action-4

- > GIS training according to the schedule.

3. SOP activity (progress of this week and schedule for the next week)

3-1. Progress

The team and SOP/HQ team reported the following:

(1) SOP Action-1 "Preparation of basic system drawings"

SHPWASCO: SOP/HQ Eng. Shafi, and SOP/MF facility managers and members
Expert team: Mr. Saeki and Ms Reem

Step-1: Survey on the available drawings/technical documents

Completed at all the model facilities of;

- Abassa WTP/Laboratory, Abu Hamad Markaz
- New Faqus WTP, Faqus Markaz
- Kafr Farag Fe/Mn Plant, Minea Al Qamah Markaz
- Bilbais BPS, Bilbais Markaz
- Zeraa Well Station, Zagazig City

Step-2: Preparation of drawing/technical documents list

Completed at;

- Abassa WTP

"Creation of basic system drawings is requested."

- New Faqus WTP

"Creation of basic system drawings is requested."

Step-3: Preparation of storage place for paper documents and PC for digital information

Confirmed at;

- Abassa WTP

PCs required at;

- New Faqus WTP
- Kafr Farag Fe/Mn Plant
- Bilbais BPS
- Zeraa Well Station

Step-4: Preparation of "draft" basic system drawings at each facility site

Started at;

- Abassa WTP/Laboratory
- New Faqus WTP

Table -1 Basic Drawings for Abassa WTP (example)

ABS-BD-01	General Layout
ABS-BD-02	Piping Route
ABS-BD-03	Cable Route
ABS-BD-04	Schematic Flow Chart*1
ABS-BD-05	Electrical Single Oneline*1
ABS-BD-06	Mechanical Equipment List
ABS-BD-07	Electrical Equipment List
ABS-BD-08	Satellite Image

(2) SOP Action-3 "Measurement/records of Intake and Production Water Volume at 7 WTPs"

SHPWASCO: SOP/HQ Eng. Shafi and WTP/network managers

Expert team: Mr. Oomori

Step-1 Field survey for installation of flow meters

Conducted at;

- Zagazig WTP
- "Finalized"
- Abassa WTP
- "Repair work by TMG is not completed."
- New Faqus WTP
- "Further examination is required for the locations/method."
- Husscinia WTP
- "Further examination is required for the locations/method."

(3) SOP Action-10 "Well Monitoring"

SHPWASCO: SOP/HQ Eng. Shafi, Dr. Osama, Eng. Gamal and SOP/MF facility managers and members

Expert team: Mr. Iijima

Step-1 Initial investigation (data collection and site visit including groundwater level measurements)

Started at well fields of ten Markaz and one city

3-2. Schedule for the next week

The team and SOP/HQ team explained the schedule for the next week as follows:

(1) SOP Action-1 "Preparation of basic system drawings"

Step-2: Preparation of drawing/technical documents list

Step-3: Preparation of storage place for paper documents and PC for digital information

Step-4: Preparation of "draft" basic system drawings at each facility site

Continued at;

- Kafr Farag Fe/Mn Plant
- Bilbais BPS
- Zeraa Well Station

Step-5: Digitalization of basic system drawings at SOP/HQ

PC and software "Auto-Cad" will be prepared by the project and therefore one Cad operator is requested from SAHAFWASCO.

(2) SOP Action-2 Preparation of unified forms of O&M records and reports

Step-1: Workshop by SOP/HQ and SOP/MF members

Preparation of workshop will be started.

(3) SOP Action-3 "Measurement/records of Intake and Production Water Volume at 7 WTPs"

Step-1 Field survey for installation of flow meters

Continued at;

- Kafr Sagr WTP
- Old Faqus WTP

(4) SOP Action-10 "Well Monitoring"

Step-1 Initial investigation (data collection and site visit including groundwater level measurements)

Continued at well fields of ten Markaz and one city

4. JCC and Open Seminar

4-1. JCC

The team proposed to have Joint Coordinating Committee (JCC) on 10th June 2007 for getting approval of Project Design Matrix-1 (PDM1) which is the 1st revision of PDM0 confirmed between the Egyptian side and the Japanese side in the Minutes of Meeting signed on 13th June 2006. Main items for the revision are as follows:

- > Determination of performance indicators as verifiable indicators for the Project
- > Determination of target UFW reduction rate in the pilot project sites
- > Additional SOP activity for preparation of basic system drawings

4-2. Open Seminar

The team proposed to have an open seminar on the same day of JCC (10th June 2007). The program (draft) of the seminar is shown as **Attachment-1**.

5. Next PTM

The team proposed to hold 3rd PTM on 19th May 2007.

(End of MM)

Attachment-1

Resume for JCC and Seminar (Tentative)

because there are duplications in the name of actions for both activities.

- UFW reduction activity : Action U1 to U14 instead of Action 1 to 14
- SOP activity : Action S1 to S10 instead of Action 1 to 10

C/P confirmed the above.

(4) Storage of procured equipment

The team requested C/P to keep the equipment procured for the Project in the warehouse or store of SHAPWASCO head office.

C/P replied that they will provide a space for the equipment in the head office.

(5) Furniture for expert's office

The team received one working desk this week and confirmed when cabinet for documents would arrive.

C/P stated that the cabinet will be delivered to the team soon.

2. UFW reduction activity (progress of this week and schedule for the next week)

2-1. Progress (Refer to Attachment-1 & 2)

Both parties confirmed the progress according to the progress chart shown in Attachment-1 & 2.

- (1) Action U2 : Conducting leakage (MNF) survey for candidate areas
 - > Workshop for UFW reduction activity was held on 17th May to confirm the method and schedule of leakage (minimum night flow : MNF) survey of the candidate areas.
 - > Preparation works were conducted for MNF survey of the candidate areas (Zagazig City-West).
- (2) Action U4 : Preparing GIS drawings
 - Intensive training for GIS was conducted this week and OJT started training C/P staff for data input of water distribution networks for the candidate areas of Pilot Project Site.

2-2. Schedule for the next week (Refer to Attachment-1 & 2)

Both parties confirmed that the following work will be conducted this week according to the progress chart shown in Attachment-1 & 2.

- (1) Action U2
 - > Conducting MNF survey for one of the candidate areas in Zagazig City-West
 - > Preparation for MNF survey of other candidate areas in Zagazig City-West
- (2) Action U4
 - > Conducting OJT for training data input of water distribution networks for the candidate areas of Pilot Project Site

3. SOP activity (progress of this week and schedule for the next week)

3-1. Progress (Refer to Attachment-3 & 4)

Both parties confirmed that following actions were conducted this week according to the tentative detailed program for Action S1 and S2 shown in Attachment-3 & 4. Programs for other Actions will be presented from the next PTM.

- Action S1 : Preparation of basic system drawings
- Action S2 : Preparation of unified forms of O&M records and reports
- Action S3 : Measurement of intake / production water volume at 7 WTPs
- Action S10 : Development of well monitoring

3-2. Schedule for the next week

Both parties confirmed that the following activities will be done next week according to the tentative detailed programs.

- (1) Internal workshop on 23rd and 24th May 2007 (refer to Attachment-5 & 6)
- (2) Actions S1, S2, S3, S5 (Water distribution control in the network), S9 (Development of water quality control system) and S10

C/P proposed the following regarding the operation method for the weekly PTM:

- > Progress chart should be upgraded in such a way that one can evaluate the actual progress of each action showing milestones, etc.
- > Presentation for confirming the results of the work should be made by means of photo, diagram, etc., every other week.

The team agreed to do so.

3-3. Provision of AutoCAD operator

The team requested C/P to provide them with an AutoCAD operator as soon as possible for Action S1 of SOP activity (refer to Attachment-3).

C/P stated that they will make effort to recruit one staff for AutoCAD by the end of this month.

4. Next PTM

The team proposed to hold 4th PTM at 2 PM on 26th May 2007. C/P agreed it.

Attachments

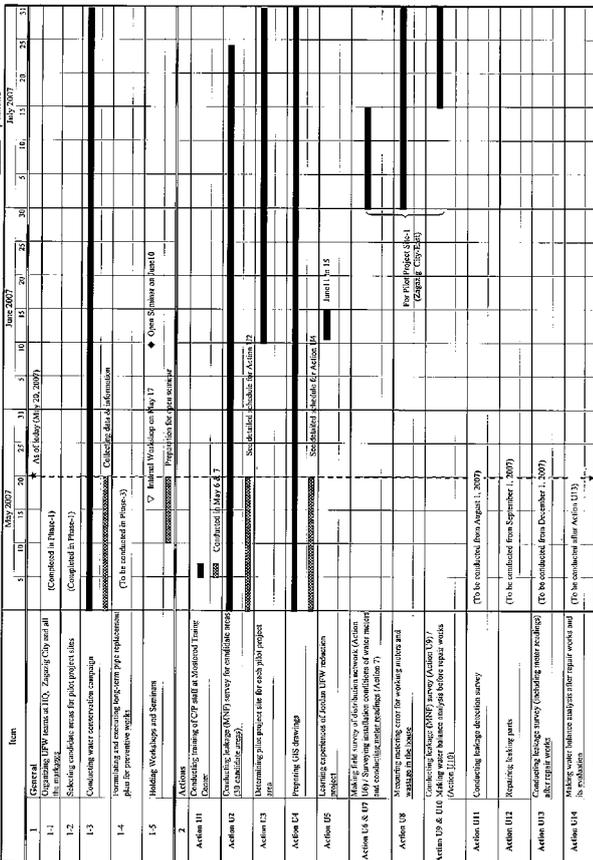
1. Progress of UFW Reduction Activity for 3 Months from May to July 2007 (as of May 20, 2007)
2. Progress of Actions U2 & U4 for 3 Months from May to July 2007 (as of May 20, 2007)
3. Tentative Detailed Program of Action-S1 (as of May 19, 2007)
4. Tentative Detailed Program of Action-S2 (as of May 19, 2007)
5. Program of Workshop for SOP Action-S1 & S2
6. Program of Workshop for SOP Action-S1, S2 & S10

(End of MM)

Attachment - 1

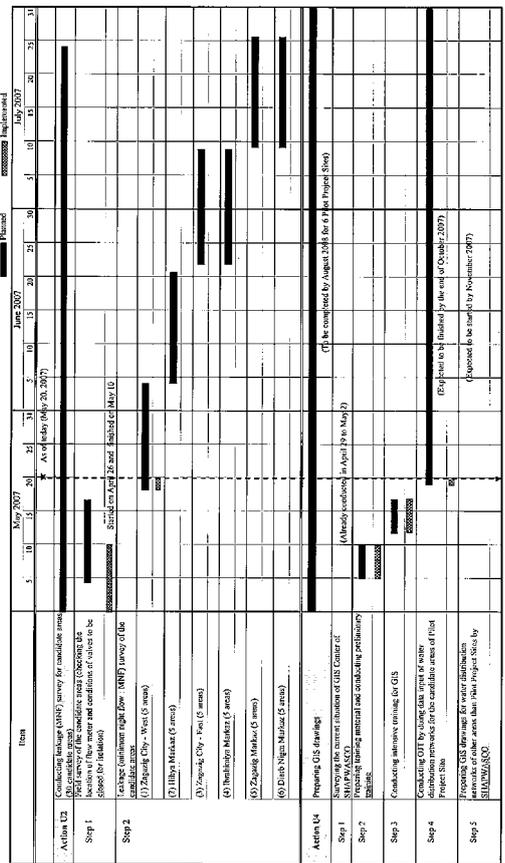
Attachment - 2

Progress of UFW Reduction Activity for 3 Months from May to July 2007
(As of May 20, 2007)



Progress for All UFW Activity (May to July 07)

Progress of Actions U2 & U4 for 3 Months from May to July 2007
(As of May 20, 2007)



Progress of Action U2 and U4

Tentative Detailed Program of Action - S1 (as of May 19 2007)
Action-1: Preparation of basic system drawings

	May			June			July		
	1	10	31	1	10	31	1	10	31
Step-1: Survey on the available drawing/technical documents									
Step-2: Drawing/technical documents list									
Step-3: Storage place for paper documents and PC for digital information									
Step-4: "Draft" basic system drawings at each facility site									
Step-5: Digitization of basic system drawings at SOP/HQ									
Step-6: SOP Internal Workshop for Action-1 and 2									
Step-7: "Draft" detailed system drawings									
Abassa WTP									
- Schematic hydraulic profiles									
- P&ID									
- Electrical Single Line Diagram with Control System									
New Paqus WTP									
- Electrical Single Line Diagram with Control System									
Kafr Ting' teMn Plant									
- Schematic hydraulic profiles									
- P&ID									
- Electrical Single Line Diagram with Control System									
Bilbeis BPS, Bilbeis Markaz									
- P&ID									
- Electrical Single Line Diagram with Control System									
Zaraa Well Station									
- P&ID									
- Electrical Single Line Diagram with Control System									
Step-8: Digitization of detailed system drawings at SOP/HQ									

Note 1. This program is for the drawings of model facilities and preparation of ones for remaining facilities will follow these steps from August utilizing the drawings produced in model facilities
 2. Kinds of detailed system drawings are subject to change through the discussion in Workshop

Tentative Detailed Program of Action - S2 (as of May 19, 2007)
Action-2: Preparation of unified forms of O&M records and reports

	May			June			July			August		
	11	20	31	1	10	31	1	10	31	1	10	31
Step-1: Examination of current recording and reporting systems												
Step-2: SOP Workshop for Unification of O&M records and reports												
Step-3: Preparation of operation recording forms for Stage-1												
- Improving method of flow rate estimates												
- Estimate procedure of production volume												
Step-4: Preparation of maintenance recording forms for Stage-1												
- Record of actual repair and maintenance												
- Regular inspection rules and forms for major equipment												
Step-5: Conducting at model facilities with record storage in PC and Collection of recorded data by HQ												
- WTP (trial and implementation)												
- FMR? (trial and implementation)												
- WPS (trial and implementation)												
Step-6: Technical Committee and Workshop for Unification of O&M												
Step-7: Applying stage-1 system to all SHAPWASCO facilities												
Step-8: Compilation of data and trial estimate of production volume												
Step-9: Discussion on contents of stage-2												

Note 1. Step-7 and Step-8 will be continued in August.
 2. For Step-9, Contents of stage-2 will be discussed in September.



The Project for Improvement of Management Capacity of O&M for SHAPWASCO With the Technical Cooperation by JICA



Workshop for SOP Action-S1 & S2 For Water treatment plant and Booster pumps station May 23, 2007 5F Training Room, SHAPWASCO, Zagazig

Objectives of the Workshop

- Part-1: to determine the extent of basic system drawings to be prepared for Abassa and New Paqus WTP and Bilbeis BPS for SOP activities to discuss the method, task force and schedule of preparation
- Part-2: to discuss the extent of unified recording and reporting system in O&M for WTP and BPS for the first stage to discuss the method, task force and schedule of preparation

Program of the Workshop

10:00 am - 12:00 am	<p>Part - 1 Action - S1: Preparation of basic system drawings</p> <ol style="list-style-type: none"> Workshop Introduction Explanation of collected basic drawings / technical documents for model facilities Discussion on required detailed system drawings for SOP activities Discussion on task force and schedule for preparation
12:00 am - 12:30 pm	Tea Break
12:30 pm - 2:30 pm	<p>Part - 2 Action - S2: Preparation of unified forms of O&M records and reports</p> <ol style="list-style-type: none"> Clarification of recording and reporting purposes Discussion on proposed stages and contents for O&M forms unification Discussion on existing O&M recording forms Explanation and discussion on alternative production water volume calculations Discussion on task force and schedule for preparation

Materials for Workshop:

- Proposed Steps and Schedule for SOP Action S1 and S2
- Basic drawings of the model facilities with mechanical and electric equipment lists
- Example forms for O & M records

Attendances List

- SHAPWASCO Taskforce Team**
- Mr. Amier Rezk Yousseif
 - Mr. Nagi Labib
 - Mr. Farouk Basha
 - Mr. Mohamed Nafee
 - Mr. Bahaa Badrawy
 - Mr. Mohamed El Saied Abd El Kader
 - Mr. Sami Gharcib
 - Mr. Ibrahim Noufal
 - Mr. Mohamed Osama Ahmed
 - Mr. Mohamed El Saied Farid
 - Mr. Ahmed Mahmoud El Ghatit
 - Mr. Mohamed Ahmed Sabet
 - Mr. Ahmed Hussein El Anwar
 - Mr. Abd El Shafi Abd El Aziz
 - Mr. Mohamed El Saied Abd El Hameed
 - Mr. Mohamed El Saied Abd El Hameed

JICA Expert Team

- Mr. Masahiro Takeuchi
- Mr. Noboru Saeki
- Mr. Keizo Kimura
- Mr. Takashi Hara
- Mr. Mitsuhiro Omori
- Mr. Mohamed Nagi
- Mr. Mahmoud Abu Khalaf
- Mr. Ashraf Ahmed
- Ms. Reem Abd El Rahman



The Project for Improvement of
Management Capacity of O&M for SHAPWASCO
With the Technical Cooperation by JICA



**Workshop for SOP Action-S1, S2 & S10
For
Fe/Mn Removal Plant and Well Pump Station
May 24, 2007**

5F Training Room, SHAPWASCO, Zagazig

Objectives of the Workshop

- Part-1: to determine the extent of basic system drawings to be prepared for Kafir Farag FMRP and Zeraa Well Pump Station for SOP activities
to discuss the method, task force and schedule of preparation
- Part-2: to discuss the extent of unified recording and reporting system in O&M for FMRP and WPS for the first stage
to discuss the method, task force and schedule of preparation
- Part-3: to discuss the current issues of well monitoring and well inventory

Program of the Workshop

10:00 am – 11:00 am	Part – 1 Action – S1: Preparation of basic system drawings 1. Workshop Introduction 2. Explanation of collected basic drawings / technical documents for model facilities 3. Discussion on required detailed system drawings for SOP activities 4. Discussion on task force and schedule for preparation
11:00 am – 12:00 am	Part – 2 Action – S2: Preparation of unified forms of O&M records and reports 1. Clarification of recording and reporting purposes 2. Discussion on proposed stages and contents for O&M forms unification 3. Discussion on existing O&M recording forms 4. Explanation and discussion on alternative production water volume calculations 5. Discussion on task force and schedule for preparation
12:00 am – 12:30 pm	Tea Break

12:30 pm – 1:30 pm	Part – 3 Action – S10: Well Monitoring 1. Explanation and discussion on Well Monitoring
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Materials for Workshop:

- Proposed Steps and Schedule for SOP Action 1 and 2
- Basic drawings of the model facilities with mechanical and electric equipment lists
- Example forms for O & M records
- Present issues of well monitoring

Attendances List

SHAPWASCO Taskforce Team

Mr. Amier Rezk Yousseif
 Mr. Aly El Mosalamy
 Mr. Emam Abd El Mawgoud
 Mr. Gamal Abd El Hameed
 Mr. Mohamed Osama Ahmed
 Mr. Abd El Shafi Abd El Aziz
 Mr. Gamal Abd El Hameed
 Mr. Mohamed El Saied Abd El Hamed

JICA Expert Team

Mr. Masahiro Takeuchi
 Mr. Noboru Sacki
 Mr. Keizo Kimura
 Mr. Nobuyuki Iijima
 Mr. Takashi Hara
 Mr. Mohamed Nagi
 Mr. Mahmoud Abu Khalaf
 Mr. Ashraf Ahmed
 Ms. Reem Abd El Rahman
 Ms. Dalia Mohamed

MM-PTM2-4 (1/3)

MM-PTM2-4 (2/3)

The Project for Improvement of Management Capacity of
Operation and Maintenance for SHAPWASCO (Phase-2)

Minutes of Meeting for 4th Project Team Meeting for PH-2
MM-PTM2-4 [07.5.26]

Date	26 th May (Saturday) 2007	Signature
Time	15:00~17:00	
Place	SHAPWASCO chairman's room	
Attendants	[SHAPWASCO : C/P] Dr. Salah Bayoumi : Chairman (the Project Manager) Eng. Alaa El Din Mohamed : Head of UFW/HQ Team (Other members were at site for the activities)	<i>S. Bayoumi</i>
	[Expert Team : The team] Mr. Masahiro Takeuchi : Chief Advisor Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Sacki : SOP Activity Mr. Nobuyuki Iijima : Well Monitoring Mr. Mitsuhiro Omori : Hydraulic Analysis Mr. Takashi Hara : Water Quality Control (Other team members were at site for the activities)	<i>M. Takeuchi</i>

I. General

(1) Arrangement of open seminar on 10th of June

- The team informed C/P that they made a reservation of Laylaty Hall of Grand Hyatt Hotel, Cairo as the seminar place.
- The team requested C/P to complete sending invitation cards to the expected participants at least by 28th May (Monday).
- The team informed that a banner for the seminar will be made within this week and they are now preparing project flyer (or leaflet) to be distributed to the participants in the seminar (refer to Attachment-1 for the draft of flyer).
- The team informed that JICA Egypt Office is now requesting WHO office in Cairo to make a presentation for WHO drinking water quality guidelines.

(2) Storage of procured equipment

The team informed that all the equipment procured in the Project so far was transferred from the expert office to the training room of SHAPWASCO head office as a temporary storage.

2. UFW reduction activity (progress of last week and schedule for this week)

2-1. Progress

Head of UFW/HQ team made presentation of the progress of UFW reduction activity done last week (refer to Attachment-2 for the presentation materials).

Both parties confirmed that Action U2 and U4 have been conducted last week as follows:

- Action U2
 - Conducting MNF survey for Area-3, 4 and 5 of the candidate areas in Zagazig City-West
 - Preparation for MNF survey of Area-2 and 5 of the candidate areas in Zagazig City-East
- Action U4
 - Conducting OJT for training data input of water distribution networks for the candidate areas of Pilot Project Area

2-2. Schedule for this week

Both parties confirmed that following activities will be done this week:

- Action U2
 - Conducting MNF survey for Area-2 and 5 of the candidate areas in Zagazig City-East
 - Conducting MNF survey for Area-4 and 5 of the candidate areas in Hihya Markaz.
 - Preparation for MNF survey of other candidate areas in Hihya Markaz
- Action U4
 - Conducting OJT for training data input of water distribution networks for the candidate areas of Pilot Project Area

3. SOP activity (progress of last week and schedule for this week)

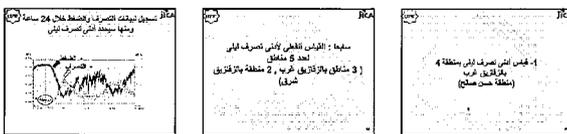
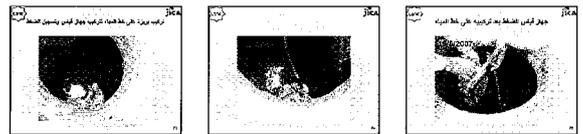
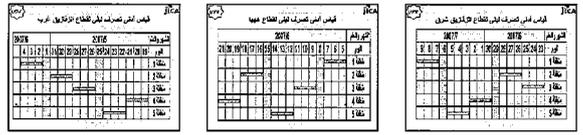
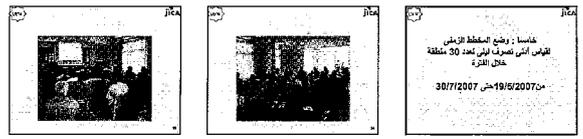
3-1. Progress

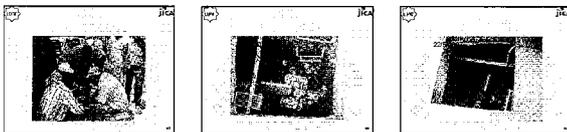
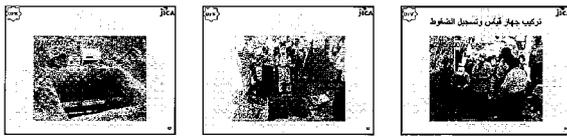
On behalf of C/P SOP teams, the team made a presentation of the progress for SOP activity (refer to Attachment-3 for the presentation materials).

Both parties confirmed that the following SOP activities have been conducted last week.

- Action S1 : Preparation of basic system drawings
 - Action S2 : Preparation of unified forms of O&M records and reports
 - Action S3 : Measurement of intake / production water volume at 7 WTPs
 - Action S10 : Development of well monitoring
- Workshops for above SOP activities were done on 23rd and 24th May 2007.

The team explained the installation plan for five (5) flow meters at Abbasa WTP. C/P accepted the plan.

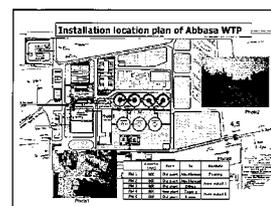
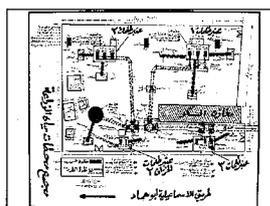




Action-S1 Basic System Drawings

Output

- Available drawings and documents were clarified in five (5) model facilities.
- "Draft" basic system drawings (except Electrical Single Line) were prepared in five (5) model facilities by facility members.



Action-S3 Measurement of Production Water Volume at WTPs

Remaining Issues

- Construction drawings/specifications for installation works to be prepared by the end of June.
- Installation works to be completed by SHAPWASCO by the end of August
 - Manholes
 - Power supply
 - Flow meter installation
- Installation plan for remaining 16 flow meters to be prepared

Action-S1 Basic System Drawings

Remaining Issues

- Preparation of detailed system drawings include: Electrical Single Line to be started by SOP/HQ and Experts
- "Draft" drawings to be digitized by CAD
- One PC to be provided to each model facility for drawing/data storage

Action-S2 Unification of O&M records and reports

Output

- Workshop was held on May 23/24.
- High priority items were proposed and agreed to start activities.
 - Records of raw water and production volumes of water supply facilities, i.e. WTP, FMRP and Well stations
 - Chemical and electric consumptions of these facilities

Action-S9 Water Quality Control System

Output

- Preparation of an internal workshop on May 30th or 31st (tentative) is ready.
- Objectives to improve the laboratory quality system (as a part of water quality control system)
 - Conduct training relating with Metrology
 - Introduction of an Internal Auditing System
 - Laboratory waste control system
- Participants: Chemists in WTPs

Action-S10 Well Monitoring

Output

- Field investigation are being conducted with counterpart team.
- Workshop was held on May 24.
- Forms of inventory and implementation schedule were proposed and discussed.

Action-S2 Unification of O&M records and reports

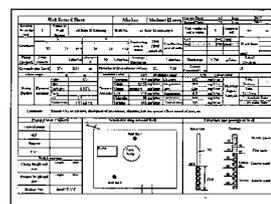
Remaining issues

- Unified operation record forms for the high priority items to be prepared
- Current efficiencies of existing pumps in model FMRP and Well Station to be measured
- One PC to be provided to each model facility for drawing/data storage

Action-S3 Measurement of Production Water Volume at WTPs

Output

- Installation plan of first five flow meters was prepared for Abbassa WTP.



Action-S10 Well Monitoring

Remaining issues

- Form and monitoring system to be finalized
- Well coding system to be prepared and authorized
- Overall monitoring to be conducted



Date : 27th May 2007
Ref. No. : IMC-YS-002

The Project for Improvement of Management Capacity of
Operation and Maintenance for SHAPWASCO (Phase-2)

Minutes of Meeting for 5th Project Team Meeting for PH-2
MM-PTM2-5 (07.6.5)

Dr. Salah Bayoumi
Chairman
SHAPWASCO

Project: The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO

Subject: Second investigation/repair work of "existing flow meters in the water treatment plants"

With regard to the captioned project, as you are already aware of it, we found out the successful repair work of flow meters in Abbasa Water Treatment Plant done in March 2007. The work was conducted by TMG company. It included four (4) flow meters to be repaired and three (3) flow meters out of four were recovered soundly. However, remaining one flow meter of electric magnetic type is needed to be replaced because the sensor part is not functioning.

We kindly recommend SHAPWASCO to finalize the first contract and to continue the investigation/repair work through TMG for the following water treatment plants where raw water and treated water flow meters are not working but there may be possibility of recovery by repair.

- New Faqus WTP
- Kafri Saqr WTP
- Huseinia WTP

Your kind attention to the above would be highly appreciated.

Yours faithfully

Masahiro Takeuchi
Chief Advisor
JICA Expert Team

JICA Expert Team Office in SHAPWASCO, Zagazig, Sharkia, Egypt
TEL +55-2351998, 2331424 / FAX +55-2351998

Date	5 th June (Tuesday) 2007	
Time	10:00~12:00	
Place	SHAPWASCO chairman's room	
Attendants	ISHAPWASCO : C/P	S. Bayoumi
	Dr. Salah Bayoumi : Chairman (the Project Manager) Eng. Alaa El Din Mohamed : Head of UFW/IQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team	
Attendees	(Expert Team : The team)	
	Mr. Masahiro Takeuchi : Chief Advisor	
	Mr. Masatoshi Seno : UFW Reduction	
	Mr. Akihiko Okazaki : Leakage Detection	
	Mr. Noboru Saeki : SOP Activity	
	Mr. Keizo Kimura : SOP Activity/Mechanical Engineer	
	Mr. Nobuyuki Iijima : Well Monitoring	
	Mr. Mitsuhiro Omori : Hydraulic Analysis	
	Mr. Takashi Hara : Water Quality Control	
	Dr. Mohamed Sobhy : Senior Engineer for UFW Mr. Mahmoud Khalaf : Senior Engineer for SOP	

1. General

(1) Arrangement of open seminar on 10th of June

> The team informed that JICA Egypt Office has already requested to and got acceptance from Mr. Hossein Abu Zeid, Head of Sanitation and Environment Department, WHO EMRO (Regional office for the Eastern Mediterranean) for making presentation in the seminar.

The team stated that they requested JICA Egypt Office to send presentation materials of WHO expert before the seminar.

> The team informed that they have already sent invitation cards with a program on 31st May 2007 to international aid organizations (USAID, EU, GTZ, KfW, SIDA, Dutch Aid Agency and WHO EMRO) and the related organizations and companies for the Japanese side.

(2) Arrival of procured equipment

The team received the equipment for the Project on 30th May 2007 as follows:

- Two (2) portable ultrasonic flow meters (dia. 200 to 6,000mm)

MM-PTM2-5 (2/3)

- Two (2) portable ultrasonic flow meters (dia. 50 to 400mm)
- Two (2) pipe & cable locators
- Two (2) metal locators
- Two (2) leak sound detector
- Two (2) non-metallic pipe vibrator

2. UFW reduction activity (progress of last week and schedule for this week)

2-1. Progress

Both parties confirmed that Actions U2 and U4 have been conducted last week. For the progress, see Attachment-1.

(1) Action U2

- > Conducting MNF survey for Area-2 of Zagazig City-East and Area-5 of Hihya Markaz
- > Preparation for MNF survey of Area-2, Area-3 and Area-4 of the candidate areas in Hihya Markaz

(2) Action U4

- > Continuation of conducting OJT for training data input of water distribution networks for the candidate areas of Pilot Project Area

2-2. Schedule for this week

Both parties confirmed that following activities will be done this week:

(1) Action U2

- > Conducting MNF survey for Area-2, 3 and 4 of the candidate areas in Hihya Markaz

(2) Action U4

- > Conducting OJT for training data input of water distribution networks for the candidate areas of Pilot Project Area

3. SOP activity (progress of last week and schedule for this week)

3-1. Progress

Both parties confirmed that Actions S1, S2, S3, S9 and S10 have been conducted last week as shown in the attached detailed schedules (Attachment-2). For the summary of SOP activities, see Attachment-3.

(1) Action S1 Basic System Drawings

- > Started preparation of P&ID at Abbasa WTP with the participants from Zagazig, Huseinia, and Old Faqus WTP members

(2) Action S2 Preparation of Unified Forms of O&M Records and Reports

- > Started activity for the high priority items
Improvement on raw water intake and production volume estimation of water

supply facilities

(3) Action S3 Measurement/records of Raw and Treated Water Volume at Seven WTPs

- > Preparing the installation work of first five flow meters

(4) Action S9 Development of Water Quality Control System

- > Conducted a workshop on 31st of May, featuring "laboratory self-auditing system"

(5) Action S10 Well Monitoring

- > Preparing preliminary well inventory items/form and well monitoring system for trial implementation in Diarb Nigm Markaz.

3-2. Schedule for this week

Both parties confirmed that following activities will be done this week:

(1) Action S1 Basic System Drawings

- > Continuing preparation of P&ID at Abbasa WTP with the participants from Zagazig, Huseinia, and Old Faqus WTP members

(2) Action S2 Preparation of Unified Forms of O&M Records and Reports

- > Continuing activity for the high priority items

(3) Action S3 Measurement/records of Raw and Treated Water Volume at Seven WTPs

- > Preparing the installation work of first five flow meters

(4) Action S9 Development of Water Quality Control System

- > Reviewing the current Raw water and Network monitoring system
- > Reviewing the current WTP & Well monitoring system

(5) Action S10 Well Monitoring

- > Conducting trial implementation by applying preliminary well inventory items/form and well monitoring system in Diarb Nigm Markaz.

3-3. AutoCAD operator

Both parties confirmed that C/P recruited one civil engineer for AutoCAD operator and he started his work from 4th June 2007.

3-4. Counterpart for Action S5 (hydraulic analysis)

The team confirmed with C/P about the allocation of a staff to SOP activity - Action S5 (hydraulic analysis).

4. Next PTM

The team proposed to hold 6th PTM on 16th June 2007.

(End of MM)

MM-PTM2-5 (3/3)

Progress of UFW Reduction Activity for 3 Months from May to July 2007
(As of End June 2007)

Item	May 2007			June 2007			July 2007			Completed
	1	10	31	1	10	31	1	10	31	
1	[Gantt chart bars for Item 1]									
1-1	[Gantt chart bars for Item 1-1]									
1-2	[Gantt chart bars for Item 1-2]									
1-3	[Gantt chart bars for Item 1-3]									
1-4	[Gantt chart bars for Item 1-4]									
1-5	[Gantt chart bars for Item 1-5]									
1-6	[Gantt chart bars for Item 1-6]									
1-7	[Gantt chart bars for Item 1-7]									
2	[Gantt chart bars for Item 2]									
2-1	[Gantt chart bars for Item 2-1]									
2-2	[Gantt chart bars for Item 2-2]									
2-3	[Gantt chart bars for Item 2-3]									
2-4	[Gantt chart bars for Item 2-4]									
2-5	[Gantt chart bars for Item 2-5]									
2-6	[Gantt chart bars for Item 2-6]									
2-7	[Gantt chart bars for Item 2-7]									
2-8	[Gantt chart bars for Item 2-8]									
2-9	[Gantt chart bars for Item 2-9]									
2-10	[Gantt chart bars for Item 2-10]									
2-11	[Gantt chart bars for Item 2-11]									
2-12	[Gantt chart bars for Item 2-12]									
2-13	[Gantt chart bars for Item 2-13]									
2-14	[Gantt chart bars for Item 2-14]									
2-15	[Gantt chart bars for Item 2-15]									
2-16	[Gantt chart bars for Item 2-16]									
2-17	[Gantt chart bars for Item 2-17]									
2-18	[Gantt chart bars for Item 2-18]									
2-19	[Gantt chart bars for Item 2-19]									
2-20	[Gantt chart bars for Item 2-20]									
2-21	[Gantt chart bars for Item 2-21]									
2-22	[Gantt chart bars for Item 2-22]									
2-23	[Gantt chart bars for Item 2-23]									
2-24	[Gantt chart bars for Item 2-24]									
2-25	[Gantt chart bars for Item 2-25]									
2-26	[Gantt chart bars for Item 2-26]									
2-27	[Gantt chart bars for Item 2-27]									
2-28	[Gantt chart bars for Item 2-28]									
2-29	[Gantt chart bars for Item 2-29]									
2-30	[Gantt chart bars for Item 2-30]									
2-31	[Gantt chart bars for Item 2-31]									

Progress of UFW Activity (May to July 07)

Progress of Actions U2 & U4 for 3 Months from May to July 2007
(As of End June 2007)

Item	May 2007			June 2007			July 2007			Completed
	1	10	31	1	10	31	1	10	31	
U2	[Gantt chart bars for Action U2]									
U4	[Gantt chart bars for Action U4]									
U2-1	[Gantt chart bars for Action U2-1]									
U2-2	[Gantt chart bars for Action U2-2]									
U2-3	[Gantt chart bars for Action U2-3]									
U2-4	[Gantt chart bars for Action U2-4]									
U2-5	[Gantt chart bars for Action U2-5]									
U2-6	[Gantt chart bars for Action U2-6]									
U2-7	[Gantt chart bars for Action U2-7]									
U2-8	[Gantt chart bars for Action U2-8]									
U2-9	[Gantt chart bars for Action U2-9]									
U2-10	[Gantt chart bars for Action U2-10]									
U2-11	[Gantt chart bars for Action U2-11]									
U2-12	[Gantt chart bars for Action U2-12]									
U2-13	[Gantt chart bars for Action U2-13]									
U2-14	[Gantt chart bars for Action U2-14]									
U2-15	[Gantt chart bars for Action U2-15]									
U2-16	[Gantt chart bars for Action U2-16]									
U2-17	[Gantt chart bars for Action U2-17]									
U2-18	[Gantt chart bars for Action U2-18]									
U2-19	[Gantt chart bars for Action U2-19]									
U2-20	[Gantt chart bars for Action U2-20]									
U2-21	[Gantt chart bars for Action U2-21]									
U2-22	[Gantt chart bars for Action U2-22]									
U2-23	[Gantt chart bars for Action U2-23]									
U2-24	[Gantt chart bars for Action U2-24]									
U2-25	[Gantt chart bars for Action U2-25]									
U2-26	[Gantt chart bars for Action U2-26]									
U2-27	[Gantt chart bars for Action U2-27]									
U2-28	[Gantt chart bars for Action U2-28]									
U2-29	[Gantt chart bars for Action U2-29]									
U2-30	[Gantt chart bars for Action U2-30]									
U2-31	[Gantt chart bars for Action U2-31]									

Progress of Action U2 and U4

Tentative Detailed Program of Action-S1

Item	May			June			July		
	1	10	31	1	10	31	1	10	31
1	[Gantt chart bars for Item 1]								
1-1	[Gantt chart bars for Item 1-1]								
1-2	[Gantt chart bars for Item 1-2]								
1-3	[Gantt chart bars for Item 1-3]								
1-4	[Gantt chart bars for Item 1-4]								
1-5	[Gantt chart bars for Item 1-5]								
1-6	[Gantt chart bars for Item 1-6]								
1-7	[Gantt chart bars for Item 1-7]								
1-8	[Gantt chart bars for Item 1-8]								
1-9	[Gantt chart bars for Item 1-9]								
1-10	[Gantt chart bars for Item 1-10]								
1-11	[Gantt chart bars for Item 1-11]								
1-12	[Gantt chart bars for Item 1-12]								
1-13	[Gantt chart bars for Item 1-13]								
1-14	[Gantt chart bars for Item 1-14]								
1-15	[Gantt chart bars for Item 1-15]								
1-16	[Gantt chart bars for Item 1-16]								
1-17	[Gantt chart bars for Item 1-17]								
1-18	[Gantt chart bars for Item 1-18]								
1-19	[Gantt chart bars for Item 1-19]								
1-20	[Gantt chart bars for Item 1-20]								
1-21	[Gantt chart bars for Item 1-21]								
1-22	[Gantt chart bars for Item 1-22]								
1-23	[Gantt chart bars for Item 1-23]								
1-24	[Gantt chart bars for Item 1-24]								
1-25	[Gantt chart bars for Item 1-25]								
1-26	[Gantt chart bars for Item 1-26]								
1-27	[Gantt chart bars for Item 1-27]								
1-28	[Gantt chart bars for Item 1-28]								
1-29	[Gantt chart bars for Item 1-29]								
1-30	[Gantt chart bars for Item 1-30]								
1-31	[Gantt chart bars for Item 1-31]								

note 1. This program is for the drawings of model facilities and preparation of ones for remaining facilities will follow these steps from August utilizing the drawings produced in model facilities
2. Kinds of detailed system drawings are subject to change through the discussion in Workshop

Tentative Detailed Program of Action-S2

Item	May			June			July			August		
	1	10	31	1	10	31	1	10	31	1	10	31
1	[Gantt chart bars for Item 1]											
1-1	[Gantt chart bars for Item 1-1]											
1-2	[Gantt chart bars for Item 1-2]											
1-3	[Gantt chart bars for Item 1-3]											
1-4	[Gantt chart bars for Item 1-4]											
1-5	[Gantt chart bars for Item 1-5]											
1-6	[Gantt chart bars for Item 1-6]											
1-7	[Gantt chart bars for Item 1-7]											
1-8	[Gantt chart bars for Item 1-8]											
1-9	[Gantt chart bars for Item 1-9]											
1-10	[Gantt chart bars for Item 1-10]											
1-11	[Gantt chart bars for Item 1-11]											
1-12	[Gantt chart bars for Item 1-12]											
1-13	[Gantt chart bars for Item 1-13]											
1-14	[Gantt chart bars for Item 1-14]											
1-15	[Gantt chart bars for Item 1-15]											
1-16	[Gantt chart bars for Item 1-16]											
1-17	[Gantt chart bars for Item 1-17]											
1-18	[Gantt chart bars for Item 1-18]											
1-19	[Gantt chart bars for Item 1-19]											
1-20	[Gantt chart bars for Item 1-20]											
1-21	[Gantt chart bars for Item 1-21]											
1-22	[Gantt chart bars for Item 1-22]											
1-23	[Gantt chart bars for Item 1-23]											
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1-25	[Gantt chart bars for Item 1-25]											
1-26	[Gantt chart bars for Item 1-26]											
1-27	[Gantt chart bars for Item 1-27]											
1-28	[Gantt chart bars for Item 1-28]											
1-29	[Gantt chart bars for Item 1-29]											
1-30	[Gantt chart bars for Item 1-30]											
1-31	[Gantt chart bars for Item 1-31]											

note 1. Step-7 and Step-8 will be continued in August.
2. For Step-5, Contents of stage-2 will be discussed in September.

The Project for Improvement of Management Capacity of
Operation and Maintenance for SHAPWASCO (Phase-2)

Minutes of Meeting for 7th Project Team Meeting for PH-2
MM-PTM2-7 [07.8.07]

Action	Title	Contents	Output	Responsible Departments
Action-S1	Preparation of Basic System Drawings	Collection of available information and creation of basic system drawings as required	Basic and detailed system drawings for SOP	Water Service Dept. all the water supply facilities and SOP/HQ team
Action-S2	Preparation of Unified Forms of O&M Records and Reports	Unification of O&M record forms of high priority items and implementation	O&M records of raw and production volumes etc. by unified forms	Water Service Dept. Branch Offices, all the water supply facilities and SOP/HQ team
Action-S3	Measurement/records of Bulk Water Volume at Seven WTPs	Repair/installation of raw and treated water flow meters in WTP and actual measurements	Measured records of raw and treated water volume at WTP	Water Service Dept. seven WTP and SOP/HQ team
Action-S4	Development of SOPs for Model Facilities	Preparation of SOP with cooperation of facilities members, SOP/HQ and WTP	SOPs	Water Service Dept. all the water supply facilities and SOP/HQ team
Action-S5	Water Distribution Control in the Network	SS-1: Examination of water distribution in small areas with the field measurements SS-2: Hydraulic analysis of some water distribution network areas by "WaterCAD"	Issues and improvements on water distribution contained in small areas	Water Service Dept. Branch Offices, and SOP/HQ team
Action-S6	Applying SOPs to Model Facilities	Training operators and implementation of SOPs at model facilities	Effects and issues on SOP activity	Water Service Dept. all the water supply facilities and SOP/HQ team
Action-S7	Development of SOPs for the Remaining Facilities	Preparation of SOP with cooperation of facilities members, SOP/HQ team and experts	SOPs	Water Service Dept. all the water supply facilities and SOP/HQ team
Action-S8	Preparation of O&M Plan	Preparation of annual O&M plan of water supply facility based on the expert SOP activities	Annual O&M plan with cost implications	Water Service Dept. all the water supply facilities and SOP/HQ team
Action-S9	Development of Water Quality Control System	Preparation of comprehensive water quality control system based on the HCWW regulations	Water quality control system covering all the SHAPWASCO facilities	Water Service Dept., Branch Offices, Lab. Offices and SOP/HQ team
Action-S10	Development of Well Monitoring	Preparation of comprehensive well inventory and well monitoring system	Well inventory and well monitoring system for all the SHAPWASCO wells	Well Dept. Branch Offices and SOP/HQ team

Date	7 th August (Tuesday) 2007	Signature
Time	9:00~11:00	
Place	SHAPWASCO chairman's room	
Attendants	[SHAPWASCO : C/P] Eng. Alaa El Din Mohamed : Head of UFW/HQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team Eng. Anwar Rezaq Youssoufi: Water Dept. Manager, Head Office Mr. Mohamed Osama Ahmed : Chemist, Head Office Eng. Gamal Abd El Hameed Morsi : Well Stations Dept. [Expert Team : The team] Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Saeki : SOP Activity Mr. Akihiko Okazaki : Leakage Detection Mr. Mitsuhiro Omori : Network Hydraulic Analysis Dr. Ashraf A. Ahmed : Electric Mr. Mohamed Nagi : Facilitator Mr. Mahmoud Khalaf : Senior Engineer for SOP Mr. Mohamed Adam : GIS Engineer	<i>Egy. Alaa</i> <i>瀬野正敏</i> <i>石田 昇</i>

1. General

Since PTM has not been held since the end of last June, there are many issues to be addressed urgently. Therefore PTM was resumed from this week in order to clear and solve the issues.

Japanese Experts Arriving at Egypt

The team reported that the following Japanese experts arrived at Egypt:

- ① Mr. Akihiko Okazaki : Arrived on 21st July 2007
- ② Mr. Masatoshi Seno : Arrived on 2nd August 2007
- ③ Mr. Noboru Saeki : Arrived on 2nd August 2007

2. UFW reduction activity (progress of last month and schedule for this week)

The team and UFW/HQ team confirmed the progress of last month and actions for the issues raised in the meeting as follows:

maintenance in order to obtain the cooperation of the inhabitants.

- ▲ C/P stated that non working water meters will be replaced according to the agreement described in Project Progress Report 1 signed on 15th March 2007.
- ▲ C/P stated that the working water meters with dust will be cleaned parallel with water meter replacement.
- ▲ C/P stated that SHAPWASCO staffs for this activity will put in an effort to obtain the cooperation of the inhabitants.

(5) Action U8 Measuring metering error of water meter and wastage in the house

- Internal workshops for training for meter reading have been conducted prior to measuring metering error of the existing water meters in the selected pilot project area. Workshops were held on 1st and 2nd of July, 2007, where there are total 59 attendants (Engineers and Technicians) from the whole SHAPWASCO branch. Therefore, this Action U8 will be ready.

2-2. Schedule for this week

Above activity will be continued this week.

3. SOP activity (progress summary until last week and issues to be addressed)

The team and SOP/HQ team confirmed the progress until last week and actions for the issues raised in the meeting as follows:

3-1. Progress Summary

Actions S1, S2, S3, S4, S5, S9 and S10 have been conducted currently and summarized with the issues to be addressed as follows.

(1) Action S1 Basic System Drawings

- Preparation of P & ID at Abbasa WTP Bilbais BPS, Kafir Farag FMRP and Zeraa Well Station with the participants from Zagazig, Huseinia, and Old Faqus WTP members was completed.
- Preparation of electric single-line diagrams was completed.
- Digitization by CAD is essential for the SOP activities and other remaining facilities and Auto-CAD is ready to use in the Project Office. But it is not yet done by SHAPWASCO head quarter.
- ▲ SHAPWASCO understand the necessity of the drawing digitization and will reply the latest situation on arrangement of CAD operators by SHAPWASCO.

(2) Action S2 Preparation of Unified Forms of O & M Records and Reports

- Form of high priority items of the followings were prepared for WTP
 - ① Raw water and treated water pumps
 - ② Filter backwash

2-1. Progress

Actions U2, U3, U4, U7 and U8 have been conducted in the last month.

- (1) Action U2 Conducting leakage (or MNF) survey for candidate sites
 - MNF survey for Area-1, 2, 3, 4 and 5 of Ibrahimiya Markaz has been conducted.
 - MNF survey for Area-1, 3, and 4 of Zagazig City- East has been conducted.
 - MNF survey for Area-2 and 3of Zagazig Markaz has been conducted.

The progress summary until last week are shown on Attachment-1

- The team reminded C/P that the permission for cutting new asphalt road in Area-1 and 2 of Zagazig City-West shall be obtained as soon as possible.
- ▲ C/P stated that the permission for cutting asphalt will be obtained urgently.

(2) Action U3 Determining pilot project site for each pilot project area

- U3 has been conducted for Zagazig City- East and the selected pilot area was Area-4 'Elhenawy' area. For the details, see Attachment-2.
- ▲ It was agreed by PTM members that Area-4 was selected as the pilot project area for Zagazig City- East.

(3) Action U4 Preparing GIS drawings

- The inputting works for GIS in Hihya City have been begun and continued. Although GIS base maps for Hihya Markaz and Ibrahimiya Markaz were provided on August 4, 2007, the contents of them will be examined. Basically, almost main GIS base maps were provided necessary for UFW reduction activities.
- Since only one GIS trainee from C/P has been provided on a steady basis in spite of three training C/P staffs nominated, the team requested to C/P to increase the staffs for GIS.
- ▲ C/P stated that they try to increase the staffs as soon as possible.

(4) Action U7 Surveying installation conditions of water meters

- Conditions of the existing water meters in the selected pilot project area (Zagazig City East, Area-4) have been checked at site to clarify non-working meters and the customers without water meters.
- Water Meters
 - ① Non working water meters numbers are relatively high and counting for about 25-30% of the meters in the pilot area and should be replaced to have a high quality analysis of UFW water balance. Numbers of meters to be replaced in pilot project area (Zagazig City East, Area-4) will be about 450 pieces.
 - ② The working water meters with dust should be cleaned during the period of pipe leakage repair (parallel work with meter replacement).
 - ③ The public should be announced for the study to facilitate the water meter reading and

③ Alum, chlorine, and electricity consumption

- Actual application shall be discussed in the Workshop
 - ▲ It was agreed by PTM members that for the actual application of the proposed/agreed forms, repair work and new installation of certain equipment are required and therefore items of these repair and new installation shall be clarified in the coming Workshop and its realization will be requested to Top Management of SHAPWASCO.
- (3) **Action S3** Measurement/records of Raw and Treated Water Volume at Seven WTPs
- Five ultra sonic flow meters for the measurements in WTP raw water intake and production points were procured by the Project.
 - Specifications and drawings were prepared for the installation work of the first five flow meters in Abbasa WTP(Attachment-3).
 - Implementation of the installation work and measurements by SHAPWASCO are requested urgently.
 - ▲ SHPWASCO understand that this installation work is not newly raised but was agreed in the preparation of Action Plan signed by the Chairman and it can be proceeded by SHAPWASCO. SHAPWASCO agreed to take necessary action for the work immediately.
- (4) **Action S4** Development of SOPs for Model Facilities
- Detailed steps for development of SOP were formulated for Abbasa WTP (Attachment-4).
 - Step1 Current conditions in O & M were collected.
 - Step2 Preparation of draft "Headline of SOP" were completed for 21 packages.
 - Step3 Materials of common procedures were collected.
 - Step3 Workshop is planned on August 20th to 24th.
 - ▲ PTM members agreed to have an internal SOP workshop and to prepare a detailed programme until the next PTM.
 - Maintenance for electrical equipment before SOP activity in Abbasa WTP, Kafr Farg FMRP and Zeraa well stations are requested. Project will assist to prepare Repair Plan (minimum requirement basis) if SHAPWASCO requests.
 - ▲ SHPWASCO confirmed that "Repair Plans" are necessary and shall be prepared by the Project.
 - Expert team proposed the Zagazig WTP for the Electrical SOP activity site instead of Abbasa WTP due to the above reason.
 - ▲ PTM members agreed to examine the possibility that repair work limiting "DC control system for second phase facility" to minimize the time for repair and conduct SOP activity in Abbasa WTP. Expert team agreed to prepare such repair plans for Abbasa, Kafr Farg and Zeraa by August 15th and to discuss again.

■ Transfer of New Faqus WTP from NOPWASD

- ▲ SHPWASCO explained that it is under negotiation between SHAPWASCO and NOPWASD and date is not fixed yet.

(5) **Action S5** SOP activities for Water Distribution Control in the Network

- S5-1 Pilot Project for Distribution Control in Small Areas
 - Hihya Markaz was selected for the pilot project area and locations of flow measurements were planned.
 - When the bulk flow meters procured by the Project will be delivered to Zagazig in December, installation work will be done by SHAPWASCO and measurements and analysis will be conducted.
- S5-2 Hydraulic analysis of water supply and distribution network
 - A counterpart of hydraulic analysis was selected.
 - Basic training for "Water CAD" with a sample model was conducted.
 - Basic operation and method of data arrangement including importing GIS information were trained, using the model area beside Zagazig WTP
 - Implementation schedule was revised (Attachment-5).
 - Implementation of the analysis training using Zagazig City East Area-4 will be done in August.
 - Full scale analysis in Hihya Markaz will be continued after the above activity.
 - Additional counterpart from "Water Supply Facility Department" is recommended.
 - ▲ SHPWASCO agreed to try to find a proper person.

(6) **Action S9** Development of Water Quality Control System

- Data entry of historical analysis results are being conducted while the laboratory check list and the data format for network were completed.
- Water control programme for Abbasa and Zagazig WTP were started.
- Preparation of "Laboratory Protocol" shall be started in August.

(7) **Action S10** Well Monitoring

- All of the well information were collected (except some GPS data).
- Well monitoring (static groundwater level) will be started from September 1st.
- ▲ SHAPWASCO has proceeded well monitoring (static & dynamic) in 3 well sites and will start monitoring in the fourth well site after two weeks.

3-2. Schedule for this week

Above activity will be continued this week.

3-3. Computer skill training

Computer skill training was started from August 1st to SOP/HQ team members (Eng.Shafi, Eng.Gamal and Dr.Osama) and will be continued for twenty days.

4. Next PTM

The team proposed to hold 8th PTM on 14th August 2007.

(End of MM)

Attachment

1. Progress of MNF survey for candidate site (U2 Activity)
2. Selection of Pilot Area in Zagazig city- East
3. Specifications and drawings for "Installation Work of Five (5) Flow Meters in Abbasa WTP"
4. Steps for Development of SOPs for Abbasa WTP
5. Revised Schedule for Hydraulic Analysis

Attachment-1
August 7,2007

Progress of MNF survey for candidate site (U2 Activity)					
City/Markaz Name	Area	Number of House Connection	Date of Survey	Remarks	
Zagazig City-East	Area-1	El Zend	501	28-29Jun	
	Area-2	El Husenia	900	27-28May	
	Area-3	Manshat Husenia	1,200	17-18Jun	
	Area-4	El Henawy	962	19-20Jun	
	Area-5	Hai Mubarak	489	26-27May	
Zagazig City-West	Area-1	Hai El Salam	365		permission for cutting asphalt is necessary
	Area-2	Abu Areiba	546		permission for cutting asphalt is necessary
	Area-3	El Zagazig El Buhari	600	22-23May	
	Area-4	Hassan Saleh (1)	450	20-21May	
	Area-5	Hassan Saleh (2)	1,361	21-22May	
Zagazig Markaz	Area-1	Kafr El hamam	2,012	7-8June	
	Area-2	Bana Yous	2,410	31Jul-1Aug	
	Area-3	El Messalamia	1,000	2-3Aug	
	Area-4	Sharwida	900	4-5Aug	
	Area-5	Tahet Bordain	850	3-4June	
Hihya Markaz	Area-1	Southern Western of Hihya City	3,560	4-5 June	
	Area-2	Southern Eastern of Hihya City	1,414	5-6 June	
	Area-3	El Shbaween	564	2-3 June	
	Area-4	El Mosalami	795	5-6 June	
	Area-5	El Mahdiah	2,095	29-30May	
Ibrahimiya Markaz	Area-1	Ibrahimiya City	1,025	18-19June	
	Area-2	El Halawat	1,097	16-17June	
	Area-3	El Seds	584	23-24June	
	Area-4	Kafr Abo El Deeb	697	19-20June	
	Area-5	El Habsh	1,126	23-24June	
Diarb nigm Markaz	Area-1	Diarb Nigm City (El Kosalah El Bahryiah)	1,500		
	Area-2	Bahnya	1,800		
	Area-3	Gemezhat Bani Amr	2,000		
	Area-4	Sahbarah	1,030		
	Area-5	Taha El Marg	1,430		

Number of House Connection will be clarified according to the detailed survey for Pilot Project Area.

SPECIFICATIONS For

INSTALLATION WROK of FIVE FLOW METERS in ABBASA WTP

This specification covers the works for the construction of manholes and installation of five ultrasonic flow meters in Abbasa WTP.

Scope of the works of the contractor;

- Construction of four reinforced concrete manholes with manhole cover and steps.
- Supply and installation of three out door panels for indicators/converters and electric power switches (one for No.1 and 2 flow meters, one for No.3 flow meter and one for NO. 4 and 5 flow meters)
- Power supply works between the outdoor panels and power sources designated by SHPWASCO including supply of power switches, power cable and conduit pipes
- Installation work of five flow meters including preparation of pipe surface (cleaning and polishing), fixation of censors, installation of signal cables between censors and indicators/converters with conduit pipes and test/calibrations according to the manufacture's installation manual.
- Pavement for the parts damaged by above works.
- Five sets of ultra sonic flow meter censors with fixing devices and indicators/converters with signal cable are provided by SHAPWASCO.

Specifications

- General
 - The exact location and depth of the chambers should be decided based on actual situation at site.
 - Contractor has to comply with standard construction specifications of SHPWASCO.
 - Location and structural requirements for manholes and outdoor panels are shown attached drawings.
 - The contractor has to follow the attached installation instructions and specifications of the bulk flow meters.
 - Contractor has to submit as built drawing.
- Chamber for bulk flow meter
 - The chamber position shall be decided considering that required distances are secured from joints and valves and sensor position is around center of chamber.
 - The minimum distance between the bottom of the pipe and top of concrete base is 200mm as per installation manual.

Selection of Pilot Area in Zagazig City (East)

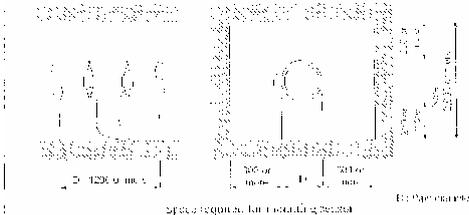
The following table indicates the results of the minimum night flow survey in Zagazig City East. The MNF ranged from 44.7 to 55.11 with an average of 51.4, and the value of MNF ranged from 7.36 to 16.12 L/S with an average of 11.31 L/S. The five areas has a relatively good average pressure around two bars.

Area	Number of House Connection	Date of Survey	Total Flow 24H (L)	MNF (Leakage) Volume 24H (m3)	MNF (Leakage) Ratio-1 (%)	MNF (L/S)	Ave Pressure (Mbit/bar)	Time on MNF
Area-1	501	28-29 June	3,089,919	1,623,421	52.54	9.18	2.10	0:51
Area-2	900	27-28 May	1,261,680	564,813	44.77	7.36	2.90	5:11
Area-3	1,200	17-18 June	1,801,177	915,791	50.84	14.92	2.10	6:29
Area-4	1500	19-20 June	1,119,298	616,838	55.11	8.98	1.85	3:43
Area-5	489	26-27 May	2,332,924	1,235,350	53.81	16.12	2.60	3:31

Area 4 "El Henawy" was selected to be the pilot area in Zagazig East due to the following reasons:

- A gas supply project is under construction in these days and this make excavation easy with no complaints from the residents to facilitate the pipe leakage repair.
- The value of the MNF is very close to the average value in the all candidate areas.
- The time of MNF is very logic as in typical residential areas.
- The area has a variety of water use as government sector (schools). The area contained two schools inside it.
- The number of house connection is in the required range 1000-1500 connections.

- The new chamber should be totally water tight by means of cleaning of laitance at construction joint, sealing at joint of existing pipes, placing wall concrete in one stage and using water tight shattering etc.
 - Signal cable should be sent out in conduit pipe from chamber to indicators/converters in the out door panels.
3. Installing of flow meter
- Installing of the censor should be the "Z" method specified in the manual.
 - Since indicators/converters are installed in outdoors, contractor shall provide outdoor steel panels with covers to accommodate indicators/converters and power switches considering the protection from direct sunlight, rainfall and dust/sandstorm.



مواصفات تركيب خمسة اجهزة قياس التصريف في محطة معالجة مياه العباسية

تغطي هذه المواصفات اعمال بناء غرف المحابس و التركيب لخمس اجهزة قياس التصريف بالموجات فوق صوتيه في محطة العباسية ...

- مجال الاعمال المقبول :-

- بناء غرف محابس اسمنت خرسانه مسلحه بالعضاء و السلم داخلي...
- توريد و تركيب ثلاث لوحات لمبيبات ومحولات الاشاره ومفاتيح القوى الكهربيه (لوحه للجهاز رقم 2,1 و لوحه للجهاز رقم 3 و لوحه للجهاز رقم 5,4) ..
- اعمال الكهرباء الواصلة بين اللوحات الخارجيه و مصدر الكهرباء كما تحدد شركة الشركه الشرقيه لمياه الشرب شامله المفتاح و الكابلات و مواسير الكابلات ..
- تركيب خمسة اجهزة قياس التصريف و ذلك بتحضير المسوره (تنظيف و تلميع) , تركيب الحساس بتوصيل كابلات الاشاره بين الحساس و المؤشرات داخل مواسير الكابلات (جراب) و الاختيار و المعايير طبقا لتكولوج الشركه الصناعه ..
- رصف الاماكن المتضرره من اعمال الحفر و التركيب ..
- سوف يتم توريد خمسة اجهزة قياس التصريف و قطع التثبيت و المؤشرات و محولات الاشاره و كابلات الاشاره من قبل شركه الشركه الشرقيه لمياه الشرب و الصرف الصحي ..

المواصفات :-

-1- عام :-

- اختيار الموقع المناسب و عمق الغرف يجب ان يتم اختيارهم بناء على الحالة التعلويه في الموقع ..
- يجب ان يتنقل المقول الي مواصفات البناء القياسيه لشركه الشركه الشرقيه لمياه الشرب ..
- الموقع و المتطلبات لاشيائه للغرف و اللوحات الخارجيه سيتمه بالرسومات المرفقه ..
- يجب ان يتنقل المقول تعليمات التركيب الملحقه و المواصفات الخاصه بجهاز قياس التصريف ..
- يجب ان يتم المقبول رسومات لمثل تم تنفيذ فعلياً ..

-2- غرفه جهاز قياس التصريف :-

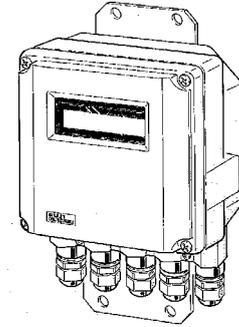
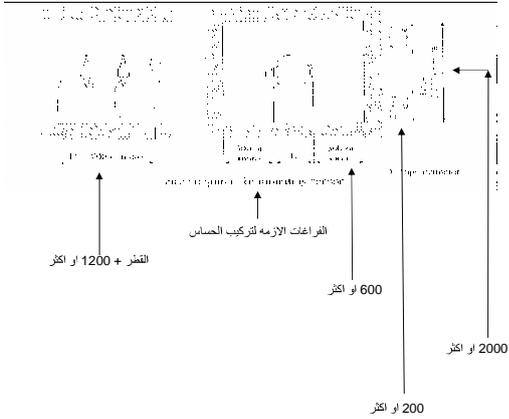
- يحدد موقع الغرفه و ابعادها باعتبار المسافات المطلوبه بين الوصلات و المحابس و موقع الحساس بحيث يكون منتصف الغرفه ..
- الارتفاع مسافه بين قاع المسوره و القاعه الخرسانيه 200مليمتر كما هو محدد في كتولوج الاجزاء ..

3-الغرفة الجديدة يجب ان تكون محكمة ضد تسرب الماء بواسطة التنظيف لسطح الخرسانه عند وصلات الانشاء - العزل حول وصلات المواسير المارة بالغرفة بسبب خرسانه الحائط في مرحله واحد واستخدام شدة غير منقذة للمياه ..

4-تركيب كابلات الاشارة الخارجيه من الغرفة خلال مواسير كابلات (جراب) و حتى لوحة المينيات / محول الاشارة ...
-3- تركيب جهاز قياس التصريف:-

1- طريقة توصيل الحساس يجب ان تكون على طريقه () كما هو مذكور بتدليل الاستخدام...

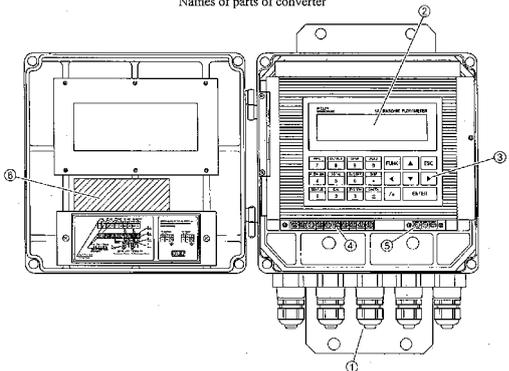
2-خطرا لان المين و محول الاشارة مركب بالخارج فانه على المقاول تركيبهم في لوحات حديدية خارجيه مركب بها المينيات / محولات الاشارة و مفاتيح الجرياء و بحيث تكون هذه الاجهزه محمية من ضوء الشمس المباشر و الامطار و الغبار و الرمال ...



1. OPERATING PARTS AND THEIR FUNCTIONS

The names and functions of parts of the converter are as follows.

Names of parts of converter



Item	Description
① Wiring port	Wiring port for power cable and signal cable.
② Data indicator	Liquid crystal indicator for measurement data and set values.
③ Key board	Used for setting the conditions of adjustments and measurements.
④ Main board terminal block	Used for connecting signal cables from sensor.
⑤ Power terminal block	Used for connection of signal cables for analog output and status output.
⑥ Parameter table	Used for connecting power cable.
	Used for entering setting data.

2. MOUNTING OF CONVERTER

2.1 Selection of mounting place

Install the converter at a place satisfying the following conditions.

- ① Ambient temperature does not exceed a range of -10°C to $+60^{\circ}\text{C}$. When installing outdoors, attach a shade or put the converter in an outdoor panel to protect it from direct sunlight.
- ② Not exposed to moisture. Even an immersion-proof type is not protected against entry of water. Make arrangements so that water can be drained quickly.
- ③ Not exposed to dust or corrosive gases.
- ④ Free from vibrations and shocks.
- ⑤ Space shown in Fig.2-1 is available for easy inspection and adjustment.

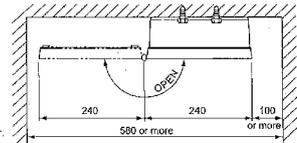


Fig. 2-1 Installation space (top view)

2.2 Mounting method

Wall mounting or 2B bypass stand mounting is available for the converter.

For wall mounting, use 4-M8 bolts.

Be sure to mount the converter at correct position as shown in Fig. 2-2.

Make a hole in the wall or the like according to the cutout dimensions shown in the diagram below, and mount the converter with M8 bolts.

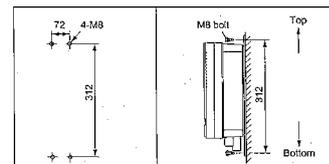
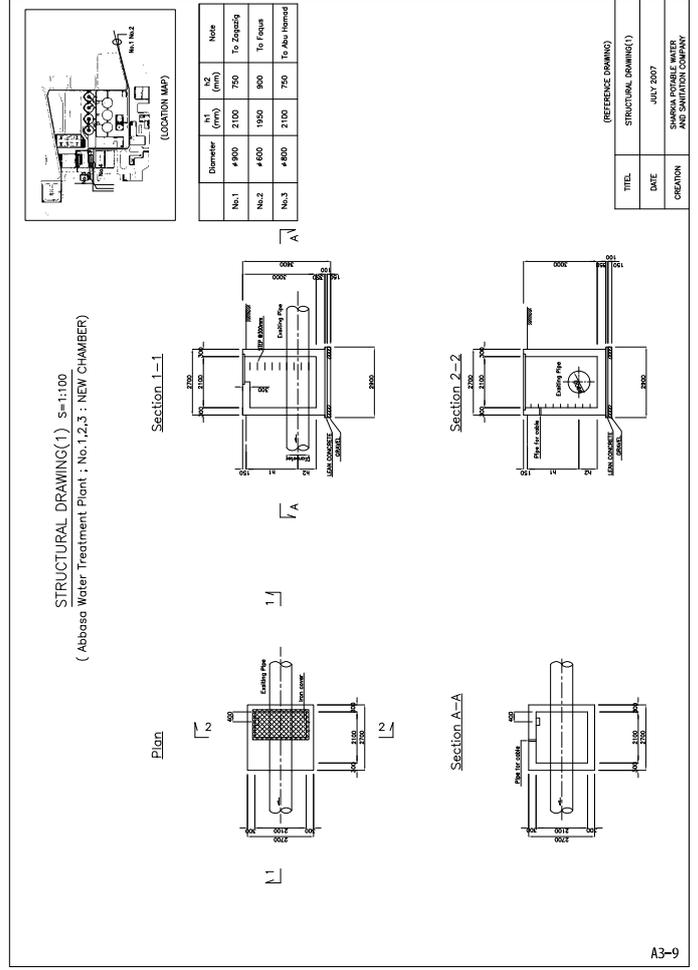
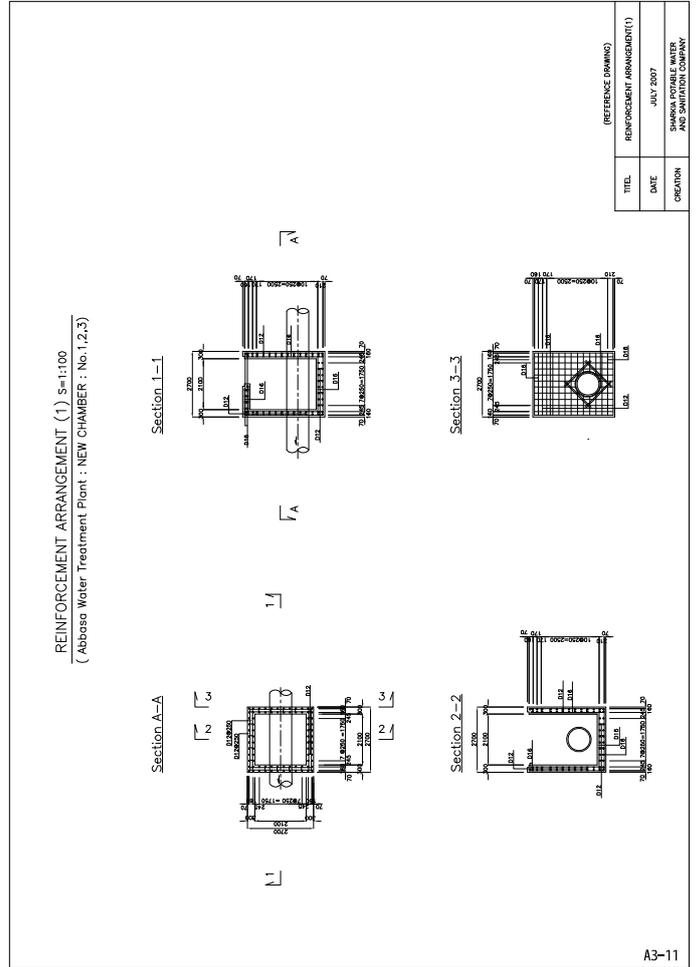
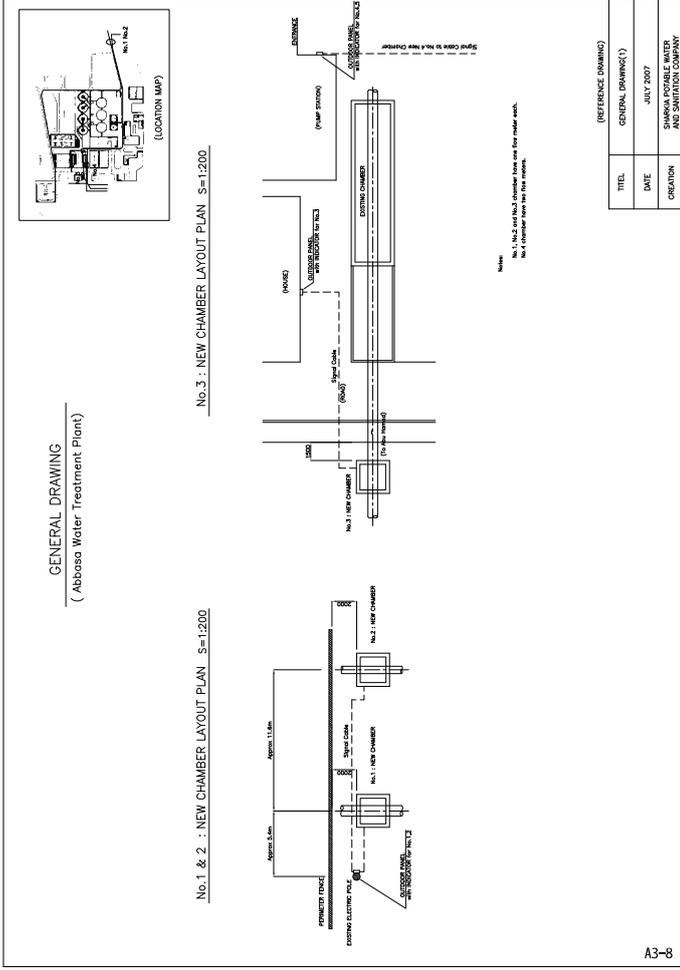
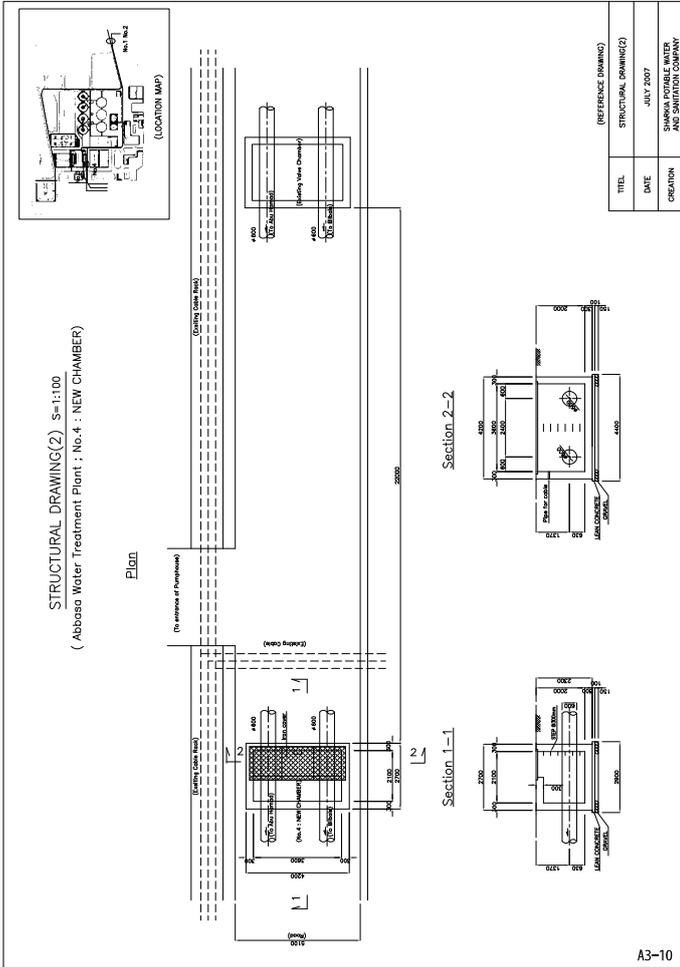
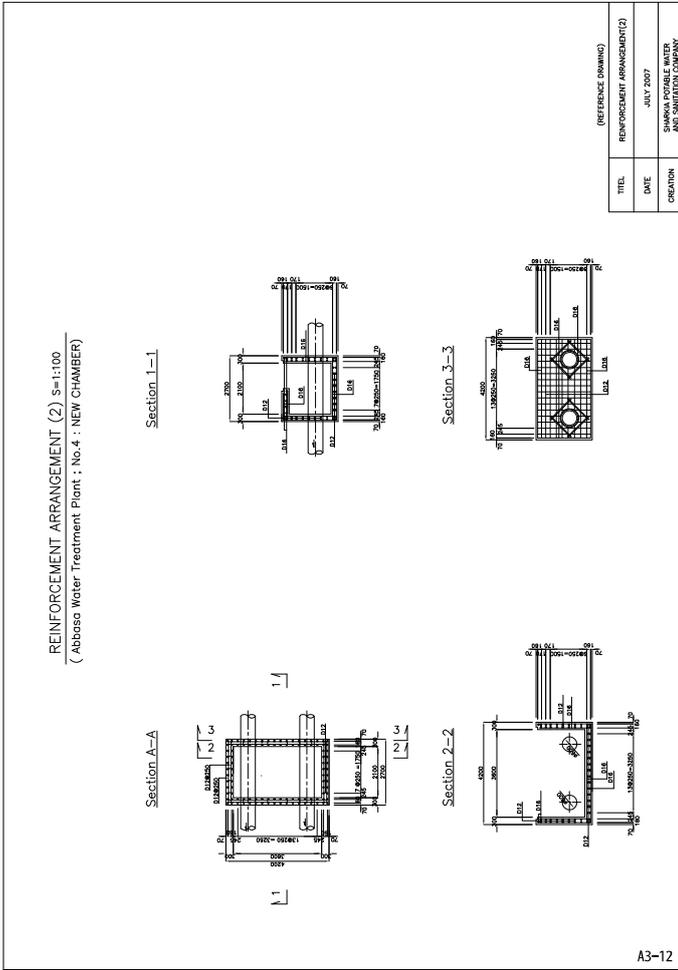


Fig. 2-2 Mounting method

In case of 2B pipe standing type, use U bolts (M8) on the market.





A3-12

Steps for development of SOP for operation in ABBASA WTP

Step 1 Grasp of details of actual current condition about O&M

We will get following information for above;

1. What do they monitor and control?
 - procedures
 - interval
 - responsibility
3. Problems facing for water treatment process

We prepared and distributed the sheets of "Headline of SOP" and "Monitoring object and controlled object for each process in ABBASA WTP". We explained about purpose of sheets and SOP documents, to the branch manager, the station manager Mr.Samir, and Mr.sharfi.

They will fill the blank space in above sheets, and back them to us within one week. Then we will discuss about results, and modify them if necessary.

Step 2 Making final draft of "Headline of SOP" for ABBASA WTP

After get the information of feedback from ABBASA WTP, we will discuss with them and make the final draft form of "Headline of SOP". Step1 and step2 will be completed until the end of July.

Step 3 Workshop for start of development of SOP

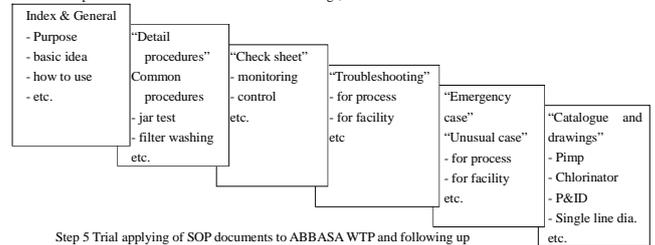
We will have a workshop for start of development of SOP for 4 days within 20th to 25th in August. 2days will be for water treatment and another 2days for electrical SOP.

In workshop, we will prepare lectures for process control for water treatment and electrical O&M work. Output form workshop will be final draft of "Headline of SOP", contents of SOP and element for SOP documents.

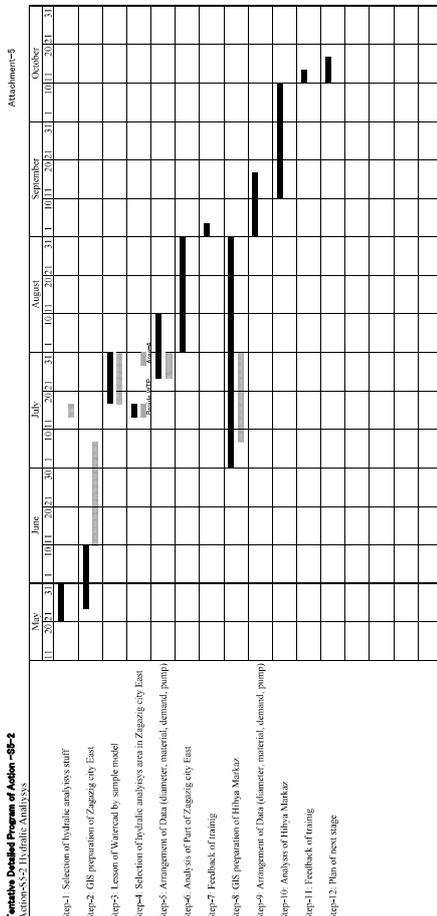
Step 4 Development of SOP document

We will develop SOP documents according to "Headline of SOP" for ABBASA WTP.

Component of SOP documents will be as followings;



Step 5 Trial applying of SOP documents to ABBASA WTP and following up



None
Plan
Actual

MM-PTM2-8 (1/5)

The Project for Improvement of Management Capacity of Operation and Maintenance for SHAPWASCO (Phase-2)

Minutes of Meeting for 8th Project Team Meeting for PH-2
MM-PTM2-8 [07.8.14]

Date	14 th August (Tuesday) 2007	Signature
Time	9:20~10:40	
Place	SHAPWASCO chairman's room	
Attendants	<p>[SHAPWASCO : C/P]</p> <p>Eng. Alae El Din Mohamed : Head of UFW/HQ Team Eng. Abdel Shafi Abdel Aziz : Head of SOP/HQ Team Mr. Mohamed Osama Ahmed : Chemist, Head Office</p> <p>[Expert Team : The team]</p> <p>Mr. Masatoshi Seno : UFW Reduction Mr. Noboru Saeki : SOP Activity Mr. Mitsuhiro Omori : Network Hydraulic Analysis Dr. Ashraf A. Ahmed : Electric Mr. Mohamed Nagi : Facilitator Mr. Mahmoud Khalaf : Senior Engineer for SOP</p>	

1. General

Nothing to be described, specially.

2. UFW reduction activity (progress of last week and issues to be addressed)

The team and UFW/HQ team confirmed the progress in last week and actions for the issues raised in the meeting as follows:

2-1. Progress

Actions U2, U4, U7, U9 and U11 have been conducted in the last week and summarized with the issues to be addressed as follows,

- (1) **Action U2** Conducting leakage (or MNF) survey for candidate sites
 - > MNF survey for Area-1, 2, 3 and 4 of Diarb Nigm has been conducted and Area-5 of Diarb Nigm Markaz will be conducted in this week.
 - Remaining MNF survey are Area-1 & 2 of Zagazig City West where the permission for cutting new asphalt road is necessary.
 - ▲ C/P stated that the letter requesting to issue the permission for cutting new asphalt road in Area-1 and 2 of Zagazig City West will be submitted to the Governorate this week.

- (2) **Action U4** Preparing GIS drawings

- The inputting works for GIS for Area 1 and 2 in Hihya City have been continued and the draft of GIS drawings of Area-1 and 2 in Hihya City was delivered the site office to check on August 14, 2007.
 - The current situation of the provision of GIS base maps is shown on Attachment-U1.
 - The Team requested to increase GIS trainees as soon as possible.
 - ▲ C/P stated that another two trainees, namely total three trainees, joined in GIS training from this week.
- (3) **Action U7** Surveying installation conditions of water meters
- The result of the existing water meter survey in the selected pilot project area (Zagazig City East, Area-4) has been examined and evaluated.
 - The Team requested that SHAPWASCO shall secure the necessary budget for replacement of non working water meters in the selected pilot project area (Zagazig City East, Area-4).
 - ▲ Although SHAPWASCO used to replace the non working water meters according to the request of the customers as normal way, SHAPWASCO will find the other procedure to replace the non working water meters by own budget. This replacement will be done parallel with the action of pipe repair action which will commence on October, 2007.
 - ▲ C/P stated that SHAPWASCO will clean the working water meters during the period of pipe leakage repair, parallel with meter replacement.
- (4) **Action U9** Conducting leakage (MNF) survey
- A flow meter has been installed at the inlet pipe of Zagazig City East, Area 4 for a continuous period of 9 days.
 - A survey for the water meter has been conducted and two sets of meter reading have been collected during the same period.
 - The activities during this action revealed two main problems in water meters and these problems should be solved parallel to the action of leakage detection and pipe repair action.
 - These two main problems are:
 - 1- Some houses put the water meter behind the locked door, so that meter readers can not reach.
 - 2- Presence of large number of non working meters (about 30%) according to the registered status in the SHAPWASCO information center.
 - It is recommended to replace or repair the non working meters, clean and calibrate the working meters as well.
 - ▲ C/P stated that SHAPWASCO will find the solution as same as action U7.

- (5) **Action U11** Conducting leakage detection survey
- Pre-survey in the selected pilot project area (Zagazig City East, Area-4) was conducted to check the location of the existing valves and the water pressure.
 - Leakage detection survey started in the selected pilot project area (Zagazig City East, Area-4) on August 14, 2007.

2-2. Schedule for this week

Above activity will be continued this week.

3. SOP activity (progress summary until last week and issues to be addressed)

The team and SOP/HQ team confirmed the progress until last week and actions for the issues raised in the meeting as follows:

3-1. Progress Summary

Actions S1, S2, S3, S4, S5, S9 and S10 have been conducted currently and summarized with the issues to be addressed as follows,

- (1) **Action S1** Basic System Drawings
- Preparation of draft P & ID and electric single-line diagrams were completed. SHAPWASCO understand the necessity of the drawing digitization by CAD and reply the latest situation on arrangement of CAD operators by SHAPWASCO.
 - SHAPWASCO understand the necessity of the drawing digitization by CAD and the latest situation on arrangement of CAD operators by SHAPWASCO shall be reported.
 - ▲ C/P stated that it needs some time to report the situation.
 - In this action activity, doubt of chlorine gas leakage in Abbasa WTP was reported by the SOP/HQ team. Detail test/analysis is recommended.
 - ▲ C/P stated that SHPWASCO will find the method of investigation and conduct the investigation and required repair.
- (2) **Action S2** Preparation of Unified Forms of O & M Records and Reports
- Agenda to be discussed in the Workshop were prepared (Attachment-S1)
- (3) **Action S3** Measurement/records of Raw and Treated Water Volume at Seven WTPs
- Preparation of chamber construction/installation contracts for the first five flow meters in Abbasa WTP was commenced in SHAPWASCO.
 - Schedule of implementation of the installation work and measurements by SHAPWASCO shall be clarified.
 - ▲ C/P stated that he will check the related department and report the latest schedule in the next PTM.
- (4) **Action S4** Development of SOPs for Model Facilities

- Step3 Workshop was planned on August 20th to 21st with the proposed programme and attendants as Attachment-S1.
 - ▲ It was agreed to add chemists and electric engineers/technicians for attendants in the workshop to deepen the discussion.
 - Maintenance for electrical equipment before SOP activity is requested. Repair Plans in Abbasa WTP Kafr Farag FMRM and Zeraa well stations were prepared by the Project (Attachment-S2).
 - Implementation schedule of repair works shall be examined and sites for electrical SOP activity shall be determined.
 - ▲ C/P stated that he will examine the plans, study the way of implementation and report the result in the next PTM. It was agreed that for the site of electrical SOP activity, Zabazig WTP will be added and the electrical SOP activity in Abbasa will be resumed after the repair work will be completed in the Project period.
 - Progress of transfer of New Faqus WTP from NOPWASD
 - ▲ It was agreed that SHAPWASCO will study the possibility to conduct SOP activity with the SHAPWASCO monitoring staff stationing at the WTP and operation contractor of NOPWASD. Expert team pointed out that supervising is not the purpose of SOP activity and activity after handing over is preferable.
- (5) **Action S5** SOP activities for Water Distribution Control in the Network
- S5-1 Pilot Project for Distribution Control in Small Areas
- No activity
- S5-2 Hydraulic analysis of water supply and distribution network
- Preparation of analysis for Zagazig City East Area-4 was started.
 - Selection of additional counterpart from "Water Supply Facility Department"
 - ▲ C/P stated that he will continue to find suitable person in SHAPWASCO. Expert team explained that the expert of hydraulic analysis will finish his assignment middle of October.
- (6) **Action S9** Development of Water Quality Control System
- Data entry of historical analysis results is being conducted.
- (7) **Action S10** Well Monitoring
- Well information regarding GPS data was collected.

4. Next PTM

The team proposed to hold 9th PTM on 22nd August, 2007.

(End of MM)

Attachment

U1: Received Base Map 1/5000 as per August 11, 2007

S1: Proposed Programme of SOP Workshop on 20th and 21st of August.

S2: Rehabilitation Plan for the Electrical Equipment of Abbasa WTP, Kafr Farag FMRP and Zeraa Well Station

The Received Base Maps 1/5000 for Sharqiya Governorate
As per August 11, 2007

Ser. No.	City	Markaz
1	Zagazig	Zagazig
2	El Asher (Tenth of Ramadan)	Abu Kabeer
3	Abu Kabeer	Abu Hamad
4	Awlad Saqr	Belbis
5	Belbis	Minia El Qamah
6	Diarb Nigm	Hihya
7	El Qourain	Diarb Nigm
8	Faqous	Ibrahimia
9	El Huseinia	
10	Ibrahimia	
11	Kafr Saqr	
12	Mashtoul El Souq	
13	Minia El Qamh	
14	El Qinaiat	
15	El Salehia	
16	Abu Hamad	
17	Hihya	

Source: GIS Center



The Project of Improvement of
Management Capacity of O&M for SHAPWASCO
With the Technical Cooperation by JICA



**SOP Workshop for
Action S2 “Preparation of unified forms of O&M records and reports”
and
Action S4 “Development of SOPs for Model Facilities”
on
August 20 and 21, 2007
5F Training Room, SHAPWASCO, Zagazig**

Objectives of the Workshop

- Part-1: to understand and discuss the coming SOPs activities in water treatment facilities by
“Headlines of SOPs for Abbasa WTP” and common procedures
to discuss the necessary steps for the implementation of unified forms of O&M records.
- Part-2: to understand and discuss the existing and proposed electrical systems of the model
facilities.
to discuss electrical SOPs with the examples

Program of the Workshop

August 20th (Monday): PART -I (Mechanical)

9:45 am – 10:00 am	1. Workshop Introduction
10:00 am – 12:00 am	Action – S2: Preparation of unified forms of O&M records and reports 1. Discussion on necessary steps for implementation of the proposed forms of O&M records Action – S4: Development of SOPs for Model Facilities 1. Steps and schedule of developing SOPs for Abbasa WTP 2. Discussion on “Headlines of SOPs”
12:00 am – 12:30 pm	Tea Break
12:30 pm – 2:30 pm	Action – S4: Development of SOPs for Model Facilities 3. Explanation and discussion on proposed common procedure-1 “Filtration” 4. Explanation and discussion on proposed common procedure-2 “Pump Operation” 5. Explanation and discussion on components of SOP documents to be prepared

August 21st (Tuesday): PART -2 (Electrical)

10:00 am – 12:00 am	Action – S4: Development of SOPs for Model Facilities 1. Current Electrical System and Proposed Improvement Plan 2. Electric System Flowchart 3. System Coding and Single Line Diagrams 4. Importance of Test and Commissioning (T&C) 5. Example of T&C 6. Free Discussion
12:00 am – 12:30 pm	Tea Break
12:30 pm – 2:30 pm	Action – S4: Development of SOPs for Model Facilities 7. Purpose of Electrical SOPs 8. Types of Electrical SOPs 9. Examples of Electrical SOP 10. Free Discussion

Materials for Workshop:

- Proposed Forms for O&M Records for WTP
- Headlines of SOP for Abbasa WTP
- Common Procedures for “Filtration” and “Pump Operation”
- Steps and Schedule for SOP Development for Abbasa WTP
- Electric System Coding and Single Line Diagrams for Model Facilities
- Examples of Electrical SOP

Attendances List

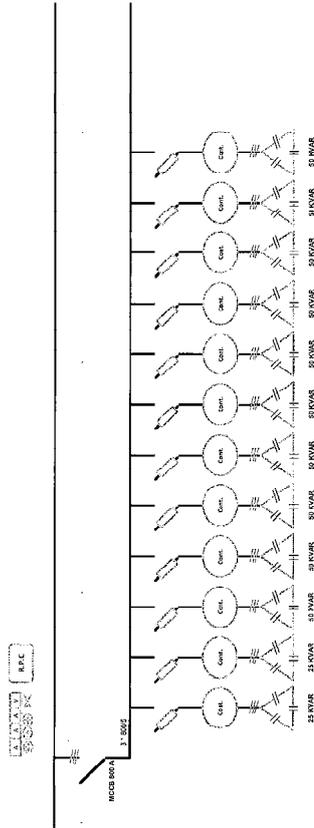
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Relative power control 12 stages



مركز التحكم في الطاقة
 Abnasa main low voltage distribution board
 JSC, EXHIBIT 13AAM
 15/06/07

1(1017)

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Very important:

The control circuit is depending on leakage of chlorine gas detection unit. We have to check the sensor and the detection unit.

Hint:

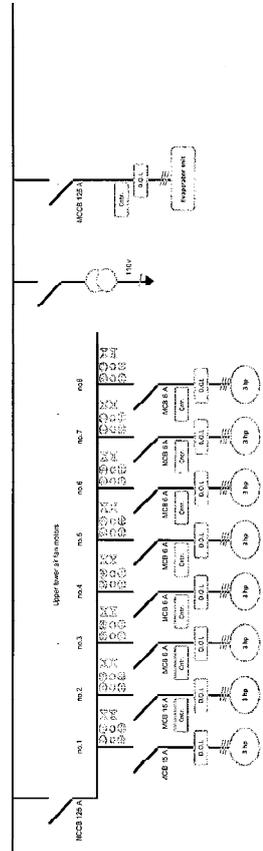
- The framework electrical must be checked to ensure the leakage sensor after the protection against chlorine gas leakage in substation MTR at end of service.
- The contractor should submit the complete S.L.D. the control circuit and the panels try out to be approved from the consultant before the manufacturing process.

V
 0

Upper level of the chlorine system

Process control unit

Panel 3

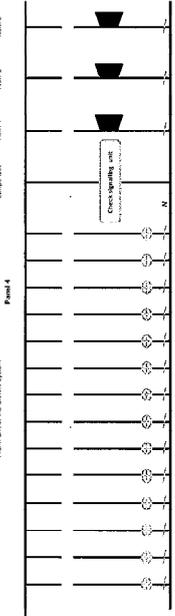


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Alarm unit of the Chlorine system

Panel 4



- Chlorine gas levels from 5 to 20 ppm common
- Low water level from 1.5 to 2.5 and common
- Emboloid temperature high
- Emboloid temperature low
- Emboloid water temperature high
- Emboloid water temperature low
- Emboloid water level high
- Emboloid water level low
- Emboloid water level common
- Stack ash liquid level low

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Rehabilitation Instructions for both El Zeraa Wells station , Kafr Farag FMT plant

General Low Voltage Panel Boards Specifications

1. The panel metal construction
2. Bus bar system
3. Wiring & Control circuit
4. Protection devices
5. Cables inlet & outlet
6. Alarms & signaling
7. Operational conditions
8. Mounting floor

1. The panel metal construction

The enclosure panel should be from cold rolled iron sheets with 2mm in thickness while the skeleton of the panel are consisting of () iron sheets with thickness not less than 2.5 mm. The metallic sheets should be chemically treated and electrostatic painted. The enclosure panel should have a degree of protection not less than IP 65.

2. Bus bar system

From an electrolytic copper which is tin electroplated. The current carrying capacity CCC is 1.5 ampere for each squared mm (1.5A/mm²). The Bus bar system is consisting of three phase's bars + neutral bar which is solidly earthed with the earthing bar. The connection between the system Moulded Case Circuit Breakers and the main bus bars are through tinned copper bars.

3. Wiring

The wiring should be done from black colored 1.5 mm² flexible wires. The wire manufacturer are el seweedy or general cables or el hegazi . Each wire element in the control circuit should be distinguished by numbering it from it's both sides according to the control circuit of the system. Each wire element should be crimped by a proper terminal from both sides. It is not allowed to gather two wires or more in one terminal and in such case the use of terminal strips is a must. The apparent wires should be gathered through a proper plexus while the others should be impeded in a suitable conduit.

4. Protection devices

For all Low voltage incoming feeders, the Moulded Case Circuit Breakers should have the following minimum protection devices:

- a. Thermal over load protection with thermal adjusting.
- b. Magnetic protection with ampere turns adjusting.
- c. Symmetrical Short circuit level not less than 40 kA

In case of the L.V incoming feeders are Air Circuit Breakers the following protection devices should be added:

- d. Under voltage and over voltage protection.
- e. Phase sequence protection.
- f. Over current protection.
- g. Earth leakage protection.
- h. Symmetrical Short circuit current should be not less than 40 kA

For all MCCBs rating up to 125 Amp. of the sub systems, the symmetrical short circuit current should be not less than 30 kA, thermal adjusted.

For all MCCBs rating from 150 Amp. and up of the sub systems, the symmetrical short circuit current should be not less than 35 kA, thermal and magnetic adjusted.

For all low voltage motors to be protected, each motor should have the follow protection devices:

- a. Over load protection
- b. U.V & O.V protection
- c. Phase sequence protection.
- d. Phase failure protection
- e. A symmetrical Protection.

That's while the motor winding should have the following protection:

- a. PTC, bimetal over temperature protection.
- b. Protection against dry running in case of motor pumps.
- c. Protection against moisture in case of immersed motor pump.

5. Cables inlet & outlet

For all power cables and control cables entering the low voltage panel board are through a proper glands to fix the cables and tight them in it's position and to keep the panel degree of protection as IP 65.

Each power and control cable should be distinguished by a proper stainless steel strips with number according to cable list and cable coding system.

6. Alarms & signaling

Each drawer should contain the faulty indication lamp and the healthy indication lamp. That's of course beside the on & off signaling. The system should have an emergency push button to disconnect the incoming feeders in case of emergency with suitable horn.

7. Operational conditions

All motors control circuit should have the Local Remote selector switch to have the facility to operate the motor either from the panel board or from the site.

For all basin systems and wells, the control circuit should have the Manual Automatic selector switch to have the facility to operate the motor either from the panel board or from the level indicator system.

For all panel boards which have MCCB as an incoming feeder, the panel should equipped with Change Over Switch to be used as a phase correction unit.

8. Mounting floor

For all main distribution and sub distribution panel boards, they should be mounted in a special electric room with mounting floor higher than that of the pumps. Not only that but also, the electric room should be completely isolated from pipes and pumps area.

Hint:

The contractor should submit the following drawing to be approved by the consultant before the start of the rehabilitation process:

- The S.L.D of the system.
- The control circuit of the system.
- Panel's lay out.
- Time schedule to execute the rehabilitation process.

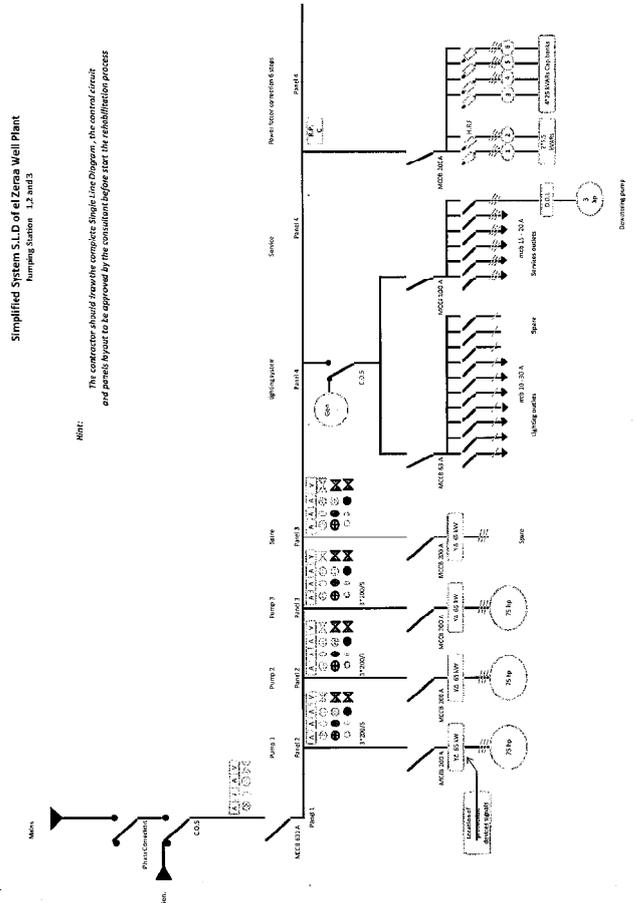
Approximate cost of rehabilitation is:

For el Zeraa about 250 000 to 300 000 L.E

For Kafr Farag about 125 000 to 150 000 L.E

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AS-10



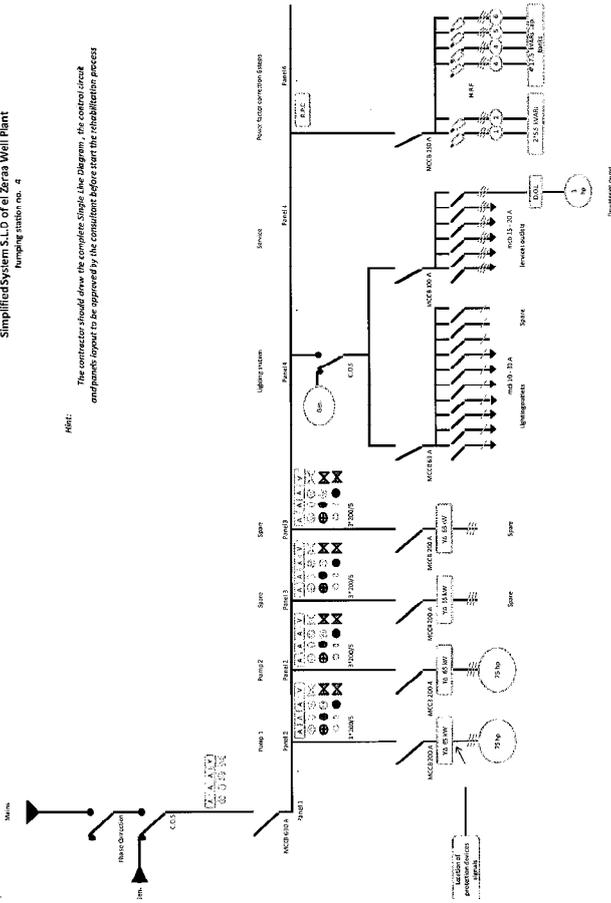
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Simplified System S.L.D of el Zeraw Well Plant

Page number: 4

Note: The contractor should draw the complete Single Line Diagram, the control circuit and panels layout to be approved by the consultant before start the rehabilitation process



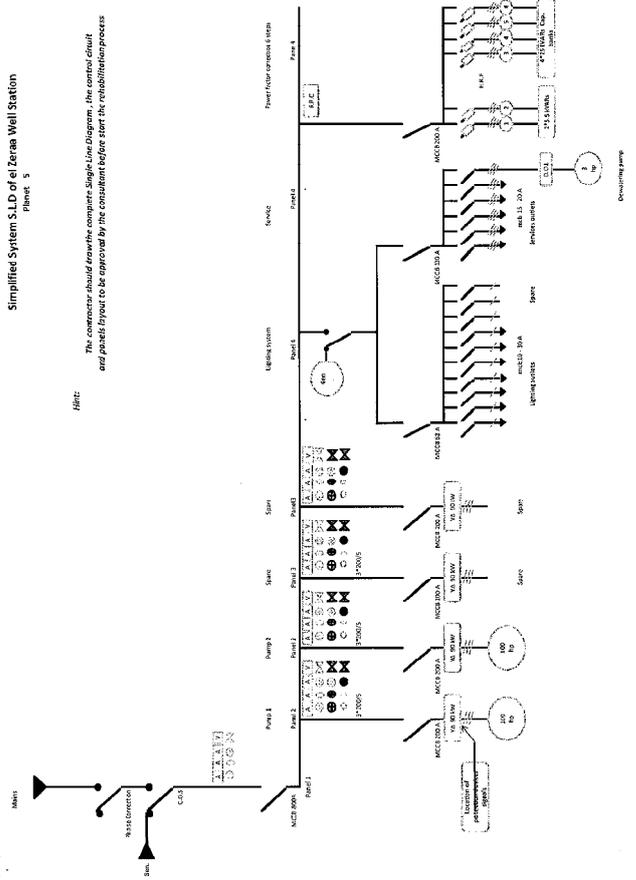
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Simplified System S.L.D of el Zeraw Well Station

Panel 5

Note: The contractor should draw the complete Single Line Diagram, the control circuit and panels layout to be approved by the consultant before start the rehabilitation process

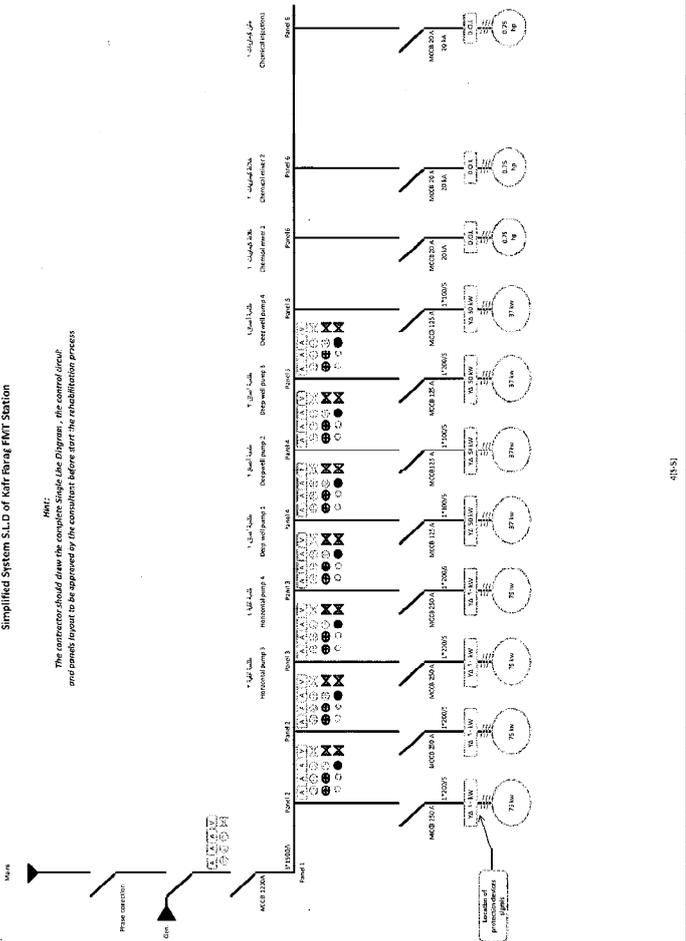


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Simplified System S.L.D of Kafr Farag FMT Station

Note: The contractor should draw the complete Single Line Diagram, the control circuit and panels layout to be approved by the consultant before start the rehabilitation process

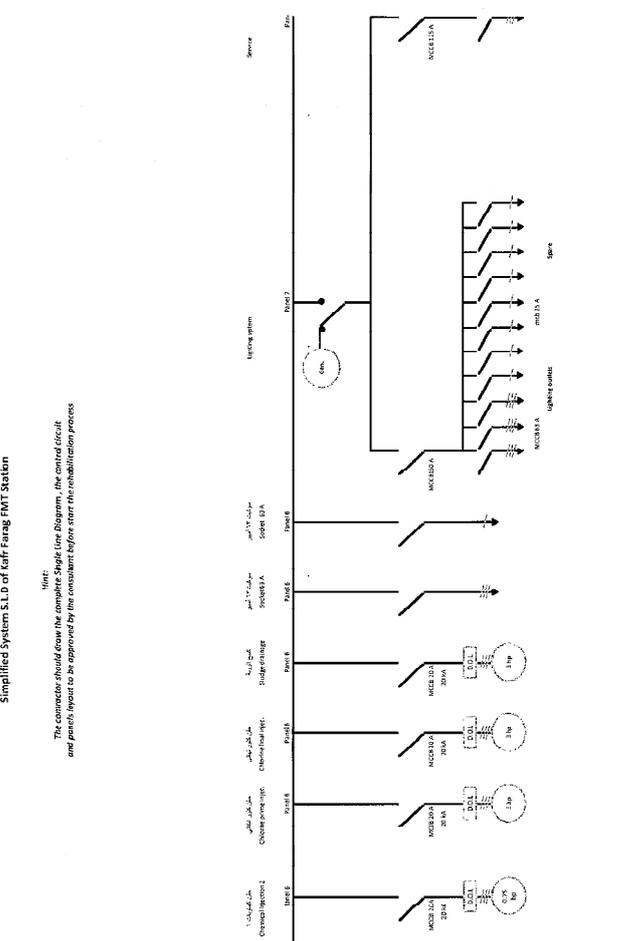


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Simplified System S.L.D of Kafr Farag FMT Station

Note: The contractor should draw the complete Single Line Diagram, the control circuit and panels layout to be approved by the consultant before start the rehabilitation process



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