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for a sustainable future

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Datum

Dkfm.Hu/Fo

Durchwahl 1569

April 20, 1988

Reference: Project No. US/INT/86/263 - 6th Workshop on
Maintenance, Plant Inspection and Energy Conservation
in Petroleum Refineries - Contract No. 88/16

F I N A L R E P O R T

This is to confirm that the following technical papers,
given to each participant of the above mentioned Workshop,
were also handed over to Mr. Derrough

1. Folder on "Maintenance Management" by J. Maier
2. Folder on "Maintenance of Rotating Equipment" by H. Miglitsch
3. Folder on "Plant Inspection" by O.P. Hornasek
4. Folder on "Energy Conservation" by D. Taylor
5. Information on "Utilities" by P. Reichel
6. Information on "Maintenance of Instrumentation" by H. Kloyber
7. Information on "Analytic Trouble Shooting" by H. Huber

Our experts have held extensive lectures on the above subjects;
schedule of these lectures was as follows:

Monday, March 7, 1988

- 9.00 Opening Session at UNIDO 412
12.00 Lunch at UNIDO
14.00 Sightseeing trip through Vienna by bus;
Dinner compliment ÖMV: Restaurant Kahlenberg
20.00 return to Hotel Strudlhof

Tuesday, March 8, 1988

- 9.00 Arrival at Refinery Schwechat,
welcome by Refinery Manager and
introduction to ÖMV
- 10.00 Excursion through the Refinery
- 12.00 LUNCH
- 13.00 MAINTENANCE (lecturer: J. Maier)
to 17.00
- General overview/introduction
 - The total maintenance function
 - Maintenance strategies
 - Shutdown planning and scheduling
 - Maintenance by contractors

Wednesday, March 9, 1988

- 9.00 PLANT INSPECTION (lecturer: O.P. Hornasek)
to 12.00
- Corrosion problems in
Petroleum refineries
 - Scheduling equipment
for inspection
 - Inspection methods
 - Deterioration & failure of equipment
and its prevention
- 12.00 LUNCH
- 13.00 - Corrosion protection by
to 17.00 organic layers (paint)
Inspection procedures
- Lifetime of equipment
 - Detailed equipment inspection

Thursday, March 10, 1988

- 9.00 EXCURSION to VOEST, LINZ
- 10.30 Visit to following departments
- Apparatus engineering
 - Welding engineering and techniques
 - non-destructive material testing
- 12.30 LUNCH
- 14.00 - Introduction to VOEST-Alpine's Department
to 17.00 for Industrial Services
- Maintenance services and systems
 - Measurements for energy conservation

Friday, March 11, 1988

- 9.00 ANALYTIC TROUBLE SHOOTING (lecturer: H. Huber)
to 12.30
- 12.30 LUNCH
- 13.30 free disposal for participants

Monday, March 14, 1988

- 9.00 PLANT INSPECTION (lecturer: O.P. Hornasek)
to 12.00
- Practical Demonstration
- 12.00 LUNCH
- 13.00 - lecture on MATERIAL STANDARDS by Dipl.Ing. Raaber,
to 17.00 TÜV (expert from Technical Safety Institute, Vienna)

Tuesday, March 15, 1988

- 9.00 PLANT INSPECTION (lecturer: O.P. Hornasek)
to 12.00
- NDT-Equipment Show
- Busride to the ACOUSTIC EMISSION TRAILER
with onsite demonstrations in cooperation
with TÜV-Vienna
- 12.00 LUNCH
- 13.00 Visit to Austrian Federal Economic Chamber
presentation of following equipment producing
companies:
Simmering-Graz-Pauker AG
Waagner-Biro AG
Ochsner GmbH
Leobersdorfer Maschinenfabrik AG
Hörbiger Ventilwerke AG
Elin-Union AG
Question and answer session with suppliers.
End of session about 17.00 o'clock
- 17.00 leaving Austrian Federal Economic Chamber to have
"Social Evening" at Heurigen "Fuhrgassl Huber",
Neustift, with members of Federal Economic Chamber,
UNIDO staff, ÖMV associates
- 21.00 return to Hotel Strudihof

Wednesday, March 16, 1988

9.00 ENERGY CONSERVATION (lecturer: D. Taylor)
to 12.00

- Introduction
- Refinery energy balance
- Energy strategy

12.00 LUNCH

13.00 - Measures for Energy reduction
to 17.00 - in general

- selected projects of the refinery
- Energy consumption monitoring system
- Energy Management

Thursday, March 17, 1988

9.00 UTILITIES (lecturer: P. Reichel)
to 12.00

- Steam/power coupling
- Water systems (cooling, injection)
- Primary energy supplies

12.00 LUNCH

13.00 MAINTENANCE ORGANIZATION & MAINTENANCE
to 17.00 INFORMATION SYSTEM (lecturer: J. Maier)

Friday, March 18, 1988

9.00 Visit to ÖMV Central Technical Department
to 11.00 Gerasdorf, with guide and extensive lecture.
Many questions by participants were treated.

12.00 LUNCH

13.30 free disposal for participants

Monday, March 21, 1988

9.00 MAINTENANCE OF ROTATING EQUIPMENT (lecturer: Miglitsch)
to 12.00 compressors, turbomachinery

12.00 LUNCH

13.00 MAINTENANCE OF INSTRUMENTATION (lecturer: H. Kloyber)
to 17.00

- Pneumatic, electronic instruments

Tuesday, March 22, 1988

9.00 Visit to Refinery Workshops
to 12.00

12.00 LUNCH

13.00 Excursion to CENTRAL WELDING INSTITUTE, VIENNA
to 16.00 (Schweißtechnische Zentralanstalt Wien, SZA)

Wednesday, March 23, 1988

9.00 QUESTION AND ANSWER SESSION with Mr. Maier,
to 12.00 Mr. Miglitsch and Mr. Hornasek

The questions are collected at the beginning
of the Workshop

12.00 LUNCH

13.00 QUESTION AND ANSWER SESSION - continue
to 15.00

Thursday, March 24, 1988

9.00 Experience Exchange among participants in
to 16.00 VIENNA INTERNATIONAL CENTER under participation
of Mr. David Day, UOP London, Mr. Maier, ÖMV
and Mr. Derrough, UNIDO

Friday, March 25, 1988

9.00 Group met again at VIC, final discussion with
Mr. Maier, Mr. Hornasek, Mr. Miglitsch, ÖMV
and Mr. Derrough, UNIDO.

14.00 CONCLUDING SESSION; followed by reception;
End about 17.00 o'clock

Participants also completed a questionnaire and evaluation
of these forms is attached for your information.

Enclosure


H. Huber

5. As a whole, has this WORKSHOP been

7 a) very valuable to you and your job

10 b) valuable

our Refinery is too old and not computerized

1 c) hardly valuable, because

d) without any value, because

3

6. Please grade organization and administration of this WORKSHOP.

7 5 4 1 1

1 2 3 4 5 6 7 8 9 10

very good

bad

7. Suggestions as to how similar WORKSHOPS could be improved:

.....
.....
.....
.....

8. Which additional themes should be treated ?

.....
.....
.....
.....

Thank you for completing this questionnaire !

ÖMV AKTIENGESELLSCHAFT

- Training Department -

To point 7. Suggestions as to how similar WORKSHOPS could be improved:

- It was very good.
- I suggest two days for the participants to discuss their problems with the panel and exchange their experience in particular field instead of one day.
- I think Saturday every week should be working day and Sunday and Monday to be weekend, so the concentration will improved.

Participants should be good english speaking and understanding.

ÖMV have done their best, but I think there should be tech. cases and solutions.

Maybe 4 weeks with more details will be very good.

- Discussion between the participants and the lecturers must be after the every conference.
- In fact, as the lecture and discussion time was not sufficient particularly for maintenance and plant inspection, I feel it necessary, in the future to be a little longer that is at least 4 weeks. For the rest it is enough.
- Documents must be adequately translated into English.
Time for afternoon lectures must be around 1.30 pm for participants to have enough relaxations.
Future participants must be encouraged to have a short stay at an area (workshops or planning office) of his interest, so as to get an insight into the type of job be done at ÖMV as compared to his.
- It is better to break down the workshop into three workshops covering the same subjects to have time and specific fields of interest.
- Participants must be informed well in time, they must also be able to communicate in the medium if tuition. A little more time to be devoted to visit refinery plants.
- Increase time for practical experience in the workshops and plants.
Preferably the workshop should be held in spring time, just before summer.
- My suggestion is to give sufficient time for various topics to be discussed in the similar workshops.

- I think better is the program dependent upon especially, I means separate all people each in his kind of job.

I think it would be better if the program is 6 week.

- Non, except during summer time.
- Better selection of participants for better experience exchanges.

Representatives of austrian companies should be qualified enough for clear demonstration.

- Sufficient time should be allowed to instructure to say what he has.

The time given to maintenance of rotary m/c was not enough.

- Different refineries conditions must be taken under consideration, so that more close othernes can be presented which are more practical.
- If possible to access the time another one week it would be very good. Anyway the seminar was very good.
- More anticipated notice for our country organization about the beginning of these workshops.
Making partial teams of participants, more visits to the refinery and workshops and work fields seeing.
Discuss the matters only after the lectures.

- Headlines should be presented firstly then discussions follow.

Questions should be limited during lectures however about 40% of the time should be allocated for discussion.

To point 8. Which additional themes should be treated?

- All areas were covered.
- If the lectures extend to discuss the problems in other refineries and to find solutions for the problems for all matter.
- This is depends upon the compositiory the participants, that is if they are managerial staff, a lecture on management effectiveness and production quality themes can be included, or the lectures on maintenance and plant inspection can be given separately.
- It is very much required for the third world to have more informations about the techniques of manpower development in the future and ways of best organization systems.
- Technical services and quality control process operations, stores management.
- Safety in the workshops and in the process unit could be added.
- Incrementation of mechanical problems treatment.
- The program is good, but I think it is better if there is included more practical.
- Spare parts.
New maintenance equipment same as tools and inspection equipment.
- Maintenance of old refineries and attempts to improve at least costs.
Salt water.
- All the discussion points from all the group should be written and gave them. Because most of time is not enough to discuss on all questions.
- Most overseas, undeveloped countries suffer from shortage of spares and obtaining spares for obsolete equipment. Strategies in dealing which this problem could be discussed.
A update course for senior (experienced) inspectors in modern techniques.

- In my opinion operation dept. and some of their cases and problems relating to plants should be presented.

Group study cases tech. should be more than one time.

Some of the cases at ÖMV need to be updated, for the case of inst. lecture it was written 1983.

Even though with above comment ÖMV have done a good job.

Also UNIDO have done a good job and good arrangement.

ÖMV Training Department
Otto-Wagner-Platz 5
A-1090 Vienna, Austria

Vienna, April 18, 1988

FINANCIAL STATEMENT

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**Project 6th Workshop on
Maintenance, Plant Inspection and Energy
Conservation in Petroleum Refineries, 1988**

1. Preperation, organization and conduct of WORKSHOP, including provision of conference facilities, and external manpower needs	AS	130.000,--
2. Luncheons and refreshments for 21 participants	AS	34.000,--
3. Transportation from the hotel to the refinery and back to the hotel, various excursions	AS	57.000,--
4. Insurance for normal medical treatment for 21 participants	AS	15.600,--
5. 2 ÖMV experts average and more per day 13 days = 26 days	AS	120.000,--
6. telexes, letters by participants to home country, packing material for mailing of conference material	AS	4.246,--
7. Provision of all documents, manuscripts, drawing, etc.	AS	44.000,--
8. Books, Literatures	AS	3.000,--
9. Hospitality programs (2 evenings) including sightseeing tours	AS	17.400,--
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	AS	425.246,--
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