Developing an effective system of used oils recycling

(internship report)

PROJECT TEAM:
SERGEI VORONKIN
ALEXANDER BUKHAROV

SUPERVISOR: FEDOR BURYUKIN
PH.D., ASSOCIATE PROFESSOR
Presentation structure

1. *The main idea of the project*

2. *Purposes of the internship*

3. *Desired results*

4. *Actual results*

5. *The main events of the internship*
The main problem

*Improper disposal of used oils poses a serious threat to the environment!*
THE MISSION OF THE PROJECT

TO MAKE KRASNOYARSK KRAI PURE!

THE OBJECTIVE IN GENERAL MEANING

To offer a solution, how to recycle used motor oils without any threat on the environment as well as with the maximum economic benefit.
### Purposes and achieved results

<table>
<thead>
<tr>
<th>Purposes</th>
<th>Desired result</th>
<th>Stage</th>
<th>Actual result</th>
</tr>
</thead>
</table>
| To learn technologies for re-refining used oils | Summary | Totally done! | Were obtained:  
- Technologies review  
- List of useful textbooks  
- Internet links |
| To learn equipment which is used for re-refining used oils | List of required equipment | Totally done! | Was obtained:  
- A list of the main types of equipment |
| To learn schemes of technological processes during visiting a plant | Technological schemes | Totally done! | Were obtained:  
- Technological schemes |
| To study how the manufacture affects on the environment | Report about the main ecological indicators | Partly done |  
- Reports are confidential information |
| To obtain a list of reliable manufacturers and suppliers of equipment, reagents and materials | List of manufacturers and suppliers of the main equipment, reagents and materials | Totally done! | Was obtained:  
- List of exact companies |
The main events of the internship

1) Plants were visited:
   - Normandy refinery
   - Total refinery
   - Lyondell Basell
   - Ineos
   - Coca-Cola

2) A meeting with a representative of Axens company
   - Discussing the worldwide used oil re-refining industry

3) Courses was completed:
   - Refining and petrochemicals overview
   - Separation processes
THANK YOU FOR YOUR TIME!

Contacts: Sergei Voronkin
+7 (950) 436 53 52
voronkinsv@mail.ru
Russia,
Krasnoyarsk.