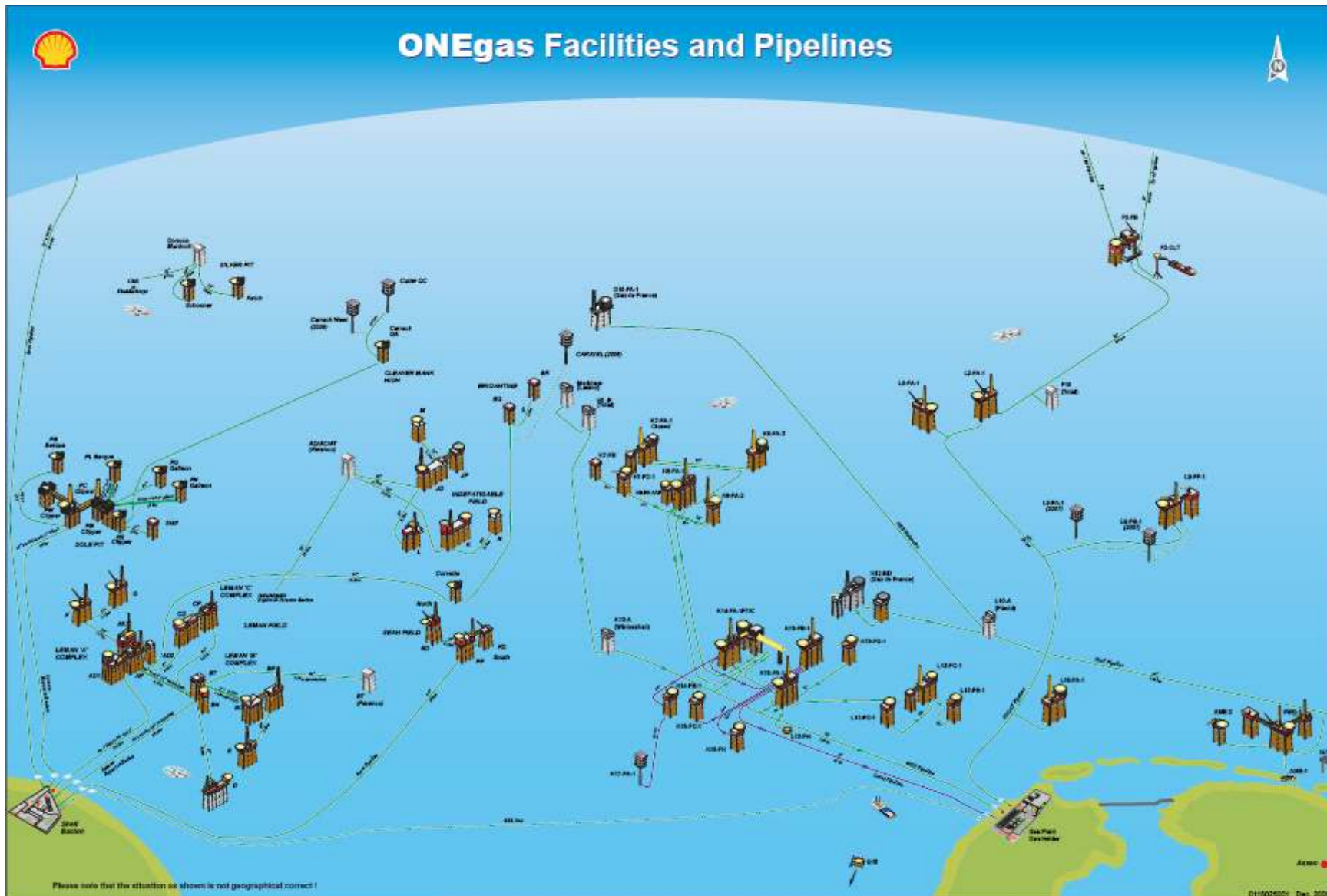


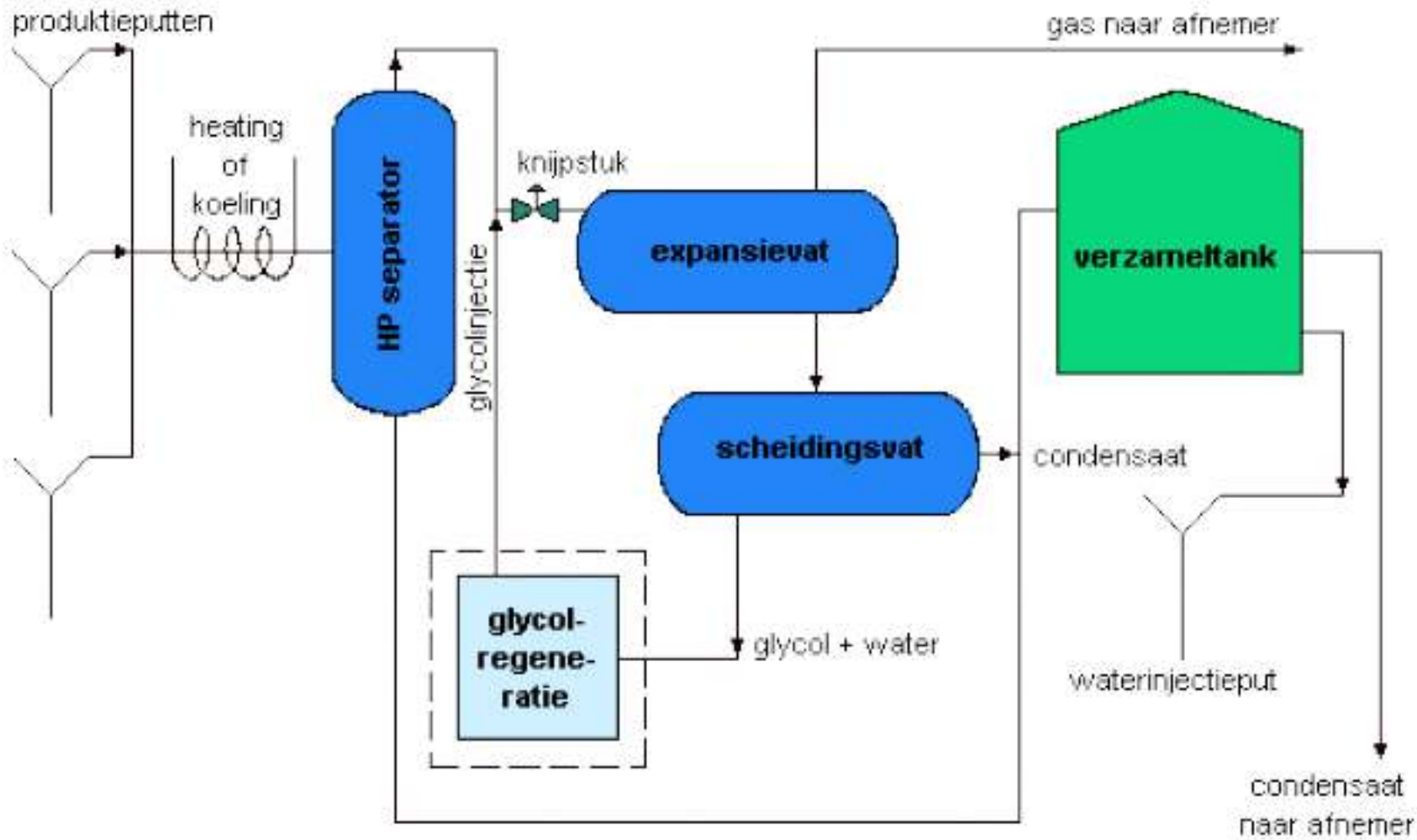
Amec, Jacobs en Stork (AJS-ISC)



Glycol Offgas Emission Reduction



't verschil



Principeschema gasbehandelingsinstallatie - expansie en glycolinjectie

Off-course = start route

Problem:

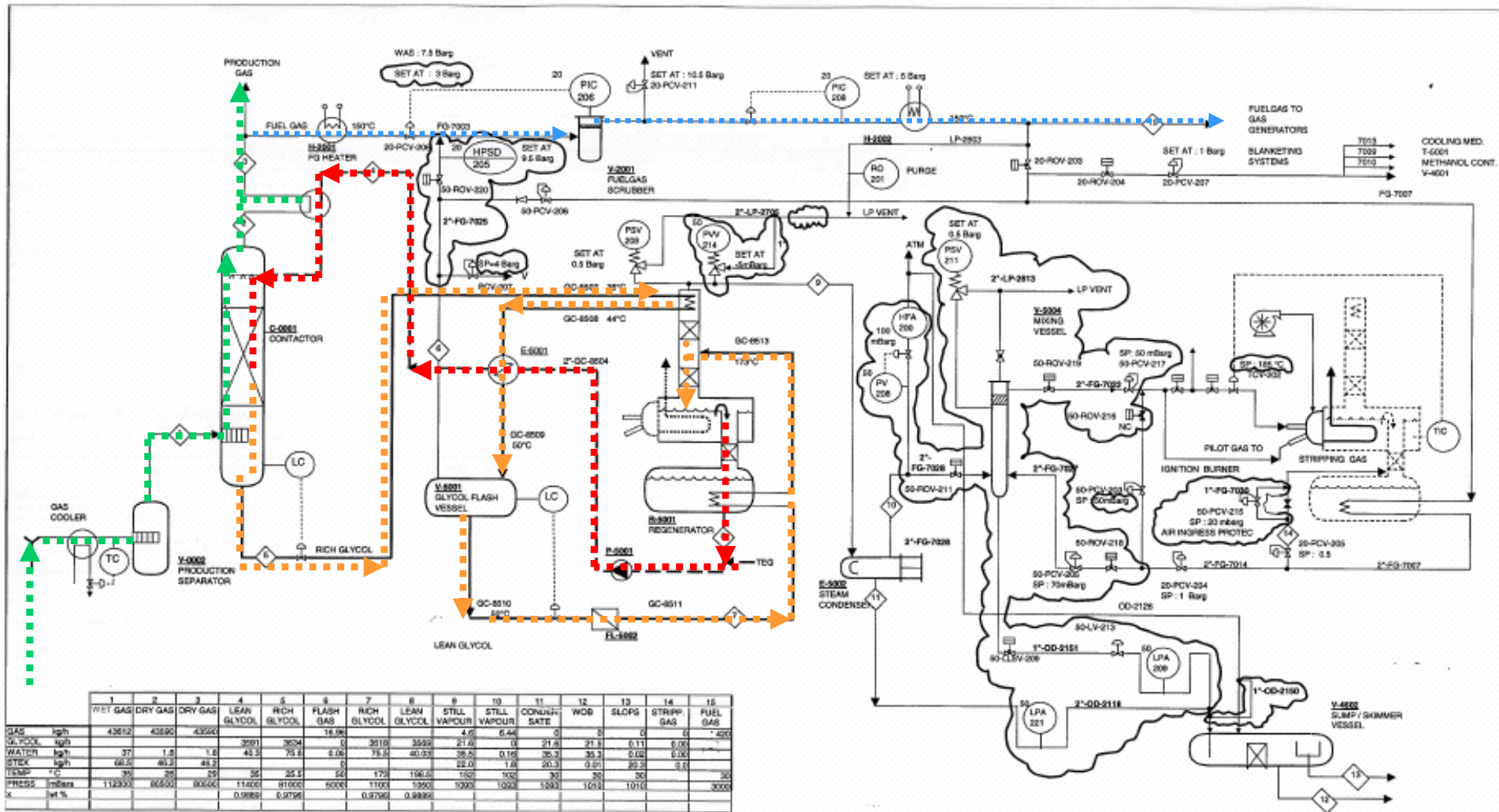
ONEgas has committed themselves to reduced carbon emissions from their offshore installations. In order to meet the target emissions levels and dates, they have agreed with the Dutch Government and NOGEPA (Netherlands Oil and Gas Exploration en Production Association)

L15-FA-1, L5-FA-1 & L02-FA-1

Solution is given by Shell.

Start February 2005.

Process overview

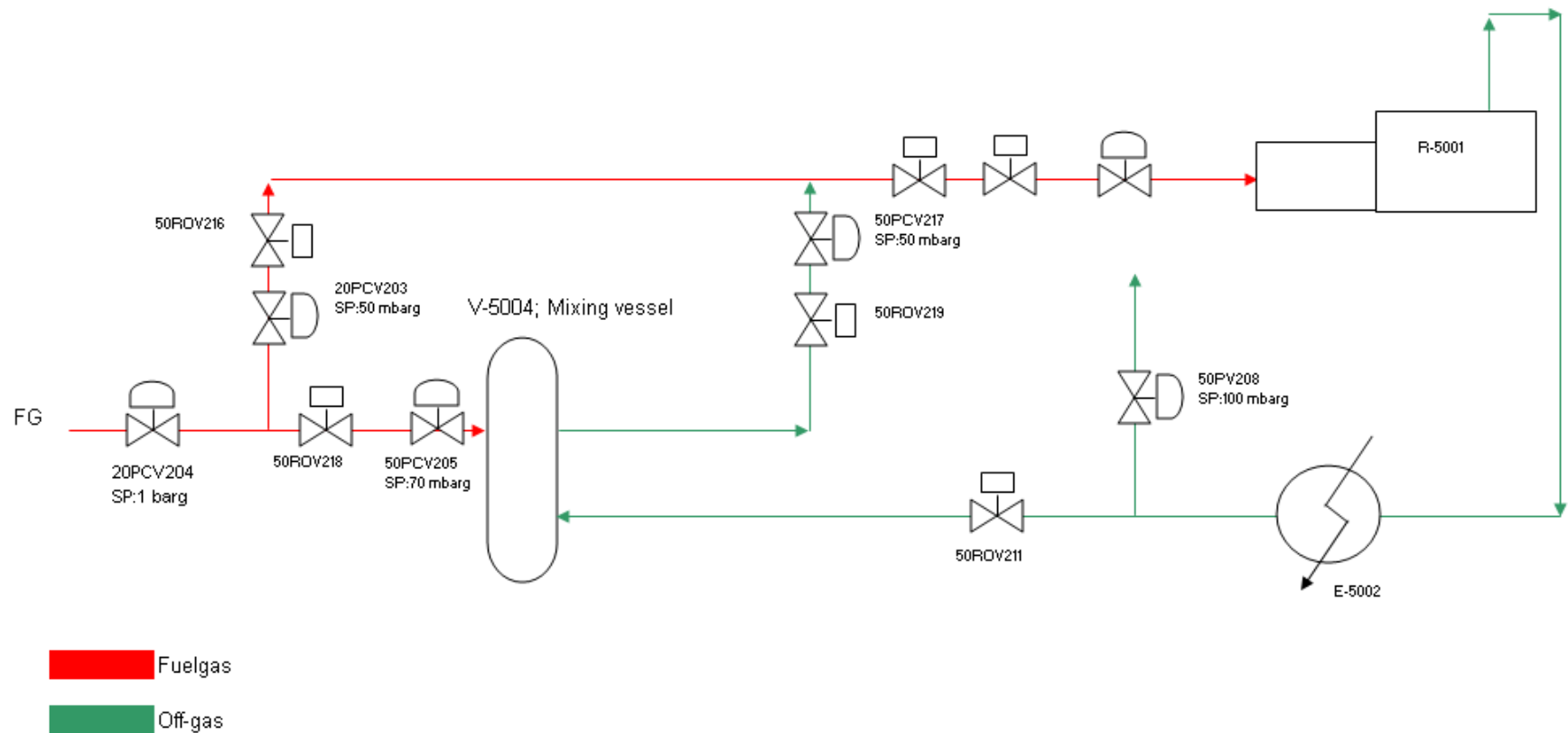


FOR INFORMATION ONLY

L2-FA-1

PROCESS FLOW SKETCH
GLYCOL OFFGAS RECOVERY
MATERIAL BALANCE BASED ON HYVIS SIMULATION

Glycol Offgas mixing Vessel



Off-course = vanzelfsprekend??

Design Principles

- Is the process safe guarding.
- Does it meet the proces requirements.
- Proces conditions from input to output.

Questions raised by AJS

- As input: variable gascompositions.
- As output: Steady gas consumption at furnace

Yes, Off-course = vanzelfsprekend

AJS is streamlined to take it on.

- Designing disciplines: Process, Piping and Mechanical, Instrumentation, Electrical, Structural.
- Workpack, support construction, construction it self, welding, vendors, software, electriciens, scaffolders,
- Inhouse services: Shell, Nam, Painting, Scaffolding. 2Rent (tools and Equipment).
- Short lines with suppliers weekly updates,
- Planning department, each asset, flightscheduling, vessels, boatsupplier, warehouses
- From projects to maintenance

AJS can deliver as asked.



Off-course = afwijking van de route

Operations point of view

- Gasproduction (no downtime)
- Safeguarding for everyone
- 24hrs alarm standby
 - Don't want an unstable system
 - Don't want the extra administration on offgas emission,
 - Other projects have more priority, maintenance, Fire&Gas, well services, drilling, unwanted shutdowns.
 - 16 beds, 8 taken by operations, cook, steward, and crane-operator and 5 operations crew.

AJS point of view

- Restart Project

Woodstork =>AJS

- environmental.

Waves, wind, waste

Project Duration:

through planning by prioritizing; missing materials, sickness

- New project people

300% budget overspend, (initial budget 3,4K)

March 2009, glycol offgas reduction is taken in production.



Off-course = start route

Off-course = vanzelfsprekend

Off-course =afwijking van de route

What can you learn??

Any Questions??

Otherwise thank you, for your interest.

With regards

Wobbe de wit

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