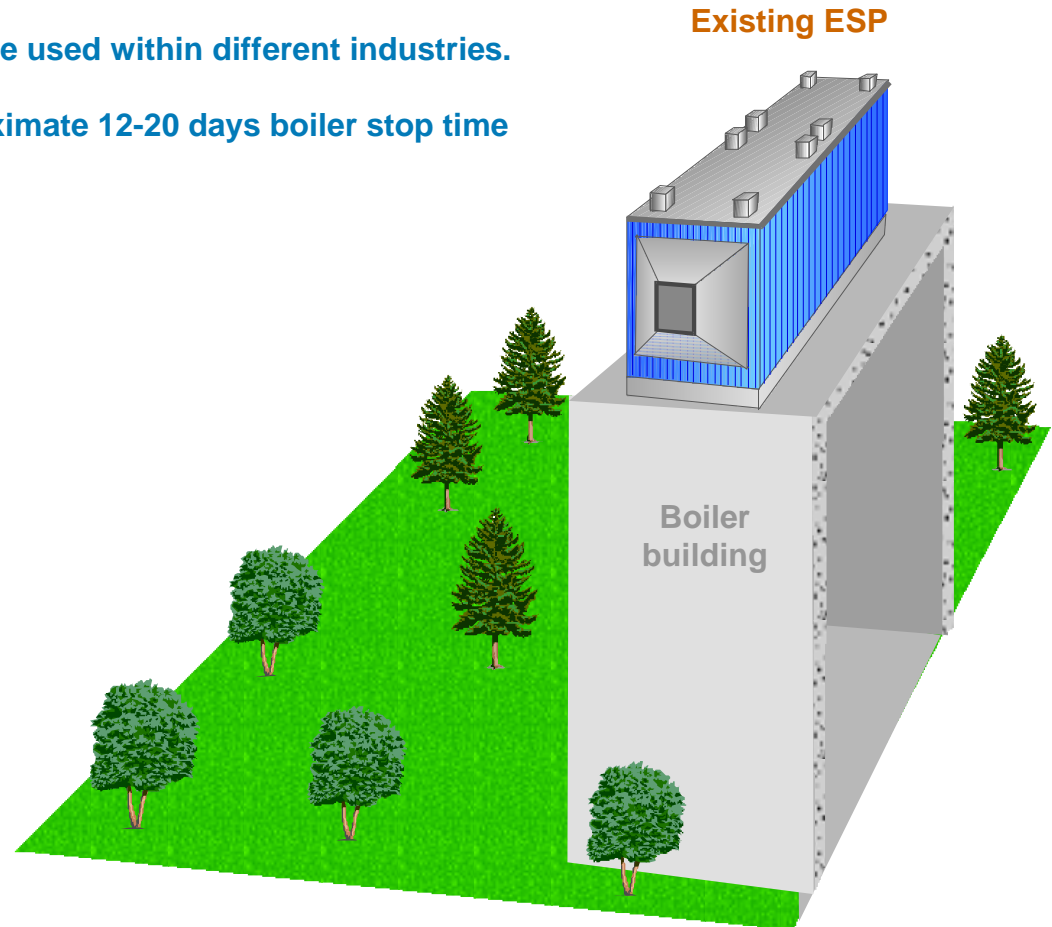


Concept 1-2-3 upgrading

The 1-2-3 concept is special developed for upgrading within the paper industry but can of course be used within different industries. Upgrading can be carried out in approximate 12-20 days boiler stop time



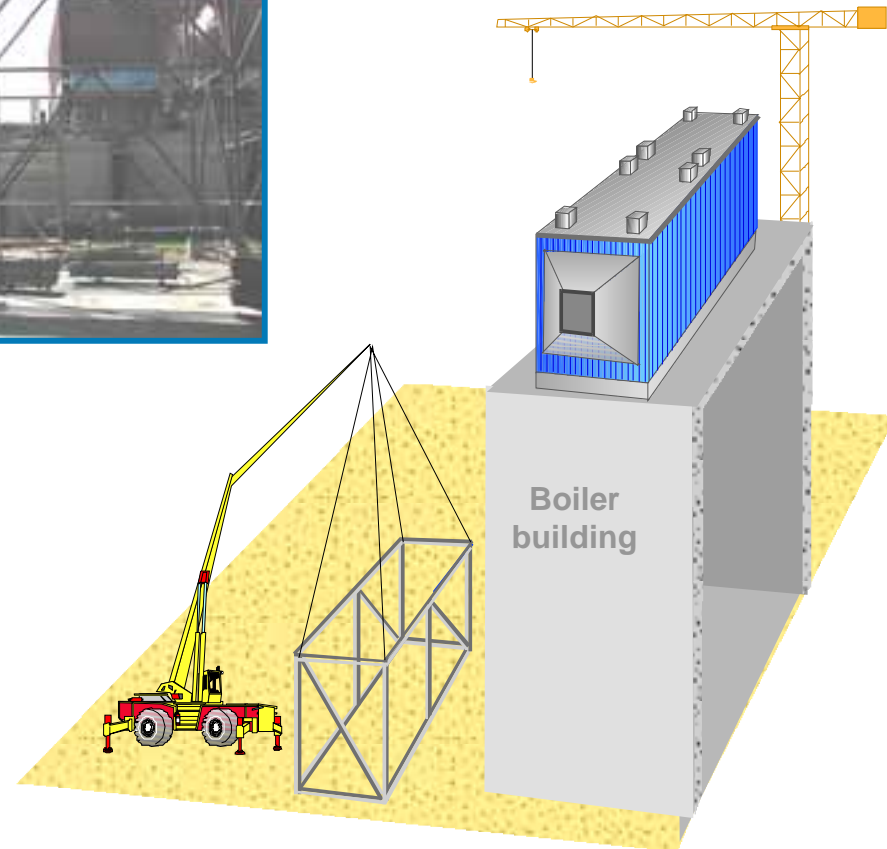
Concept 1-2-3 upgrading

Rack for pre-erection on ground

Rack for pre-erection of internals to be placed close to ESP



Step 1
Existing ESP can still be in use



Concept 1-2-3 upgrading

Pre-erection on ground

Discharge rapping system



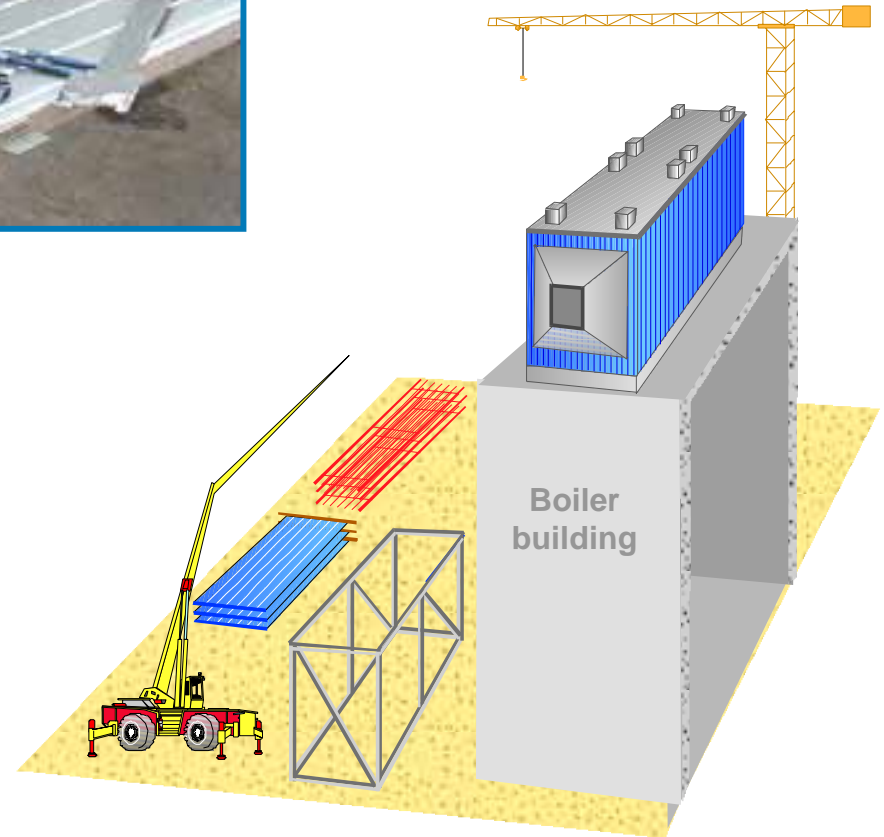
Collecting plates



Discharge frames



Step 1
Existing ESP can still be in use



Concept 1-2-3 upgrading

Pre-erection on ground

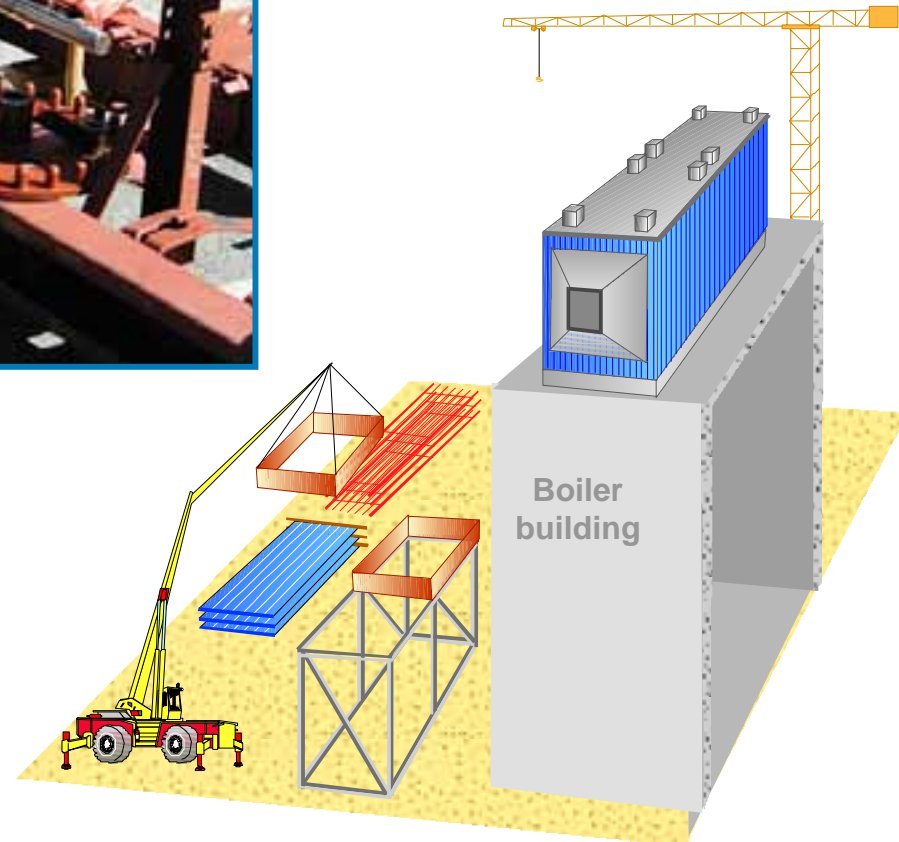
Top frame to be placed on rack



Pre-erection of rapping gear



Step 1
Existing ESP can still be in use



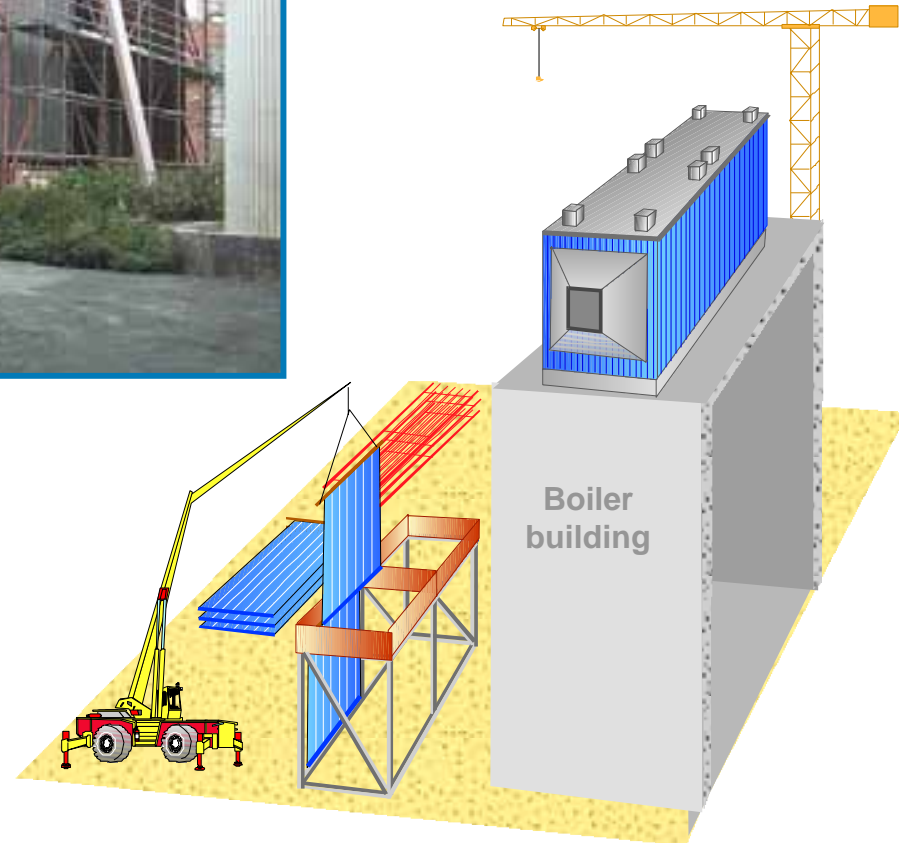
Concept 1-2-3 upgrading

Pre-erection on ground

Erection of collecting plates in rack



Step 1
Existing ESP can still be in use



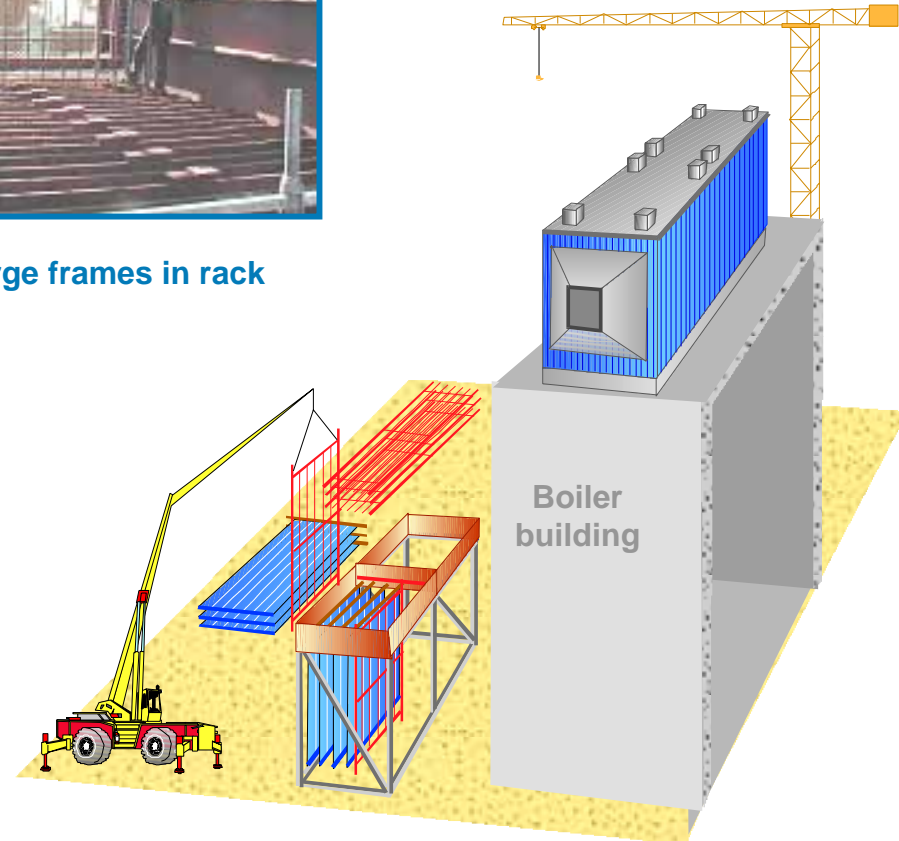
Concept 1-2-3 upgrading

Pre-erection on ground



Erection of discharge frames in rack

Step 1
Existing ESP can still be in use



Concept 1-2-3 upgrading

Pre-erection on ground

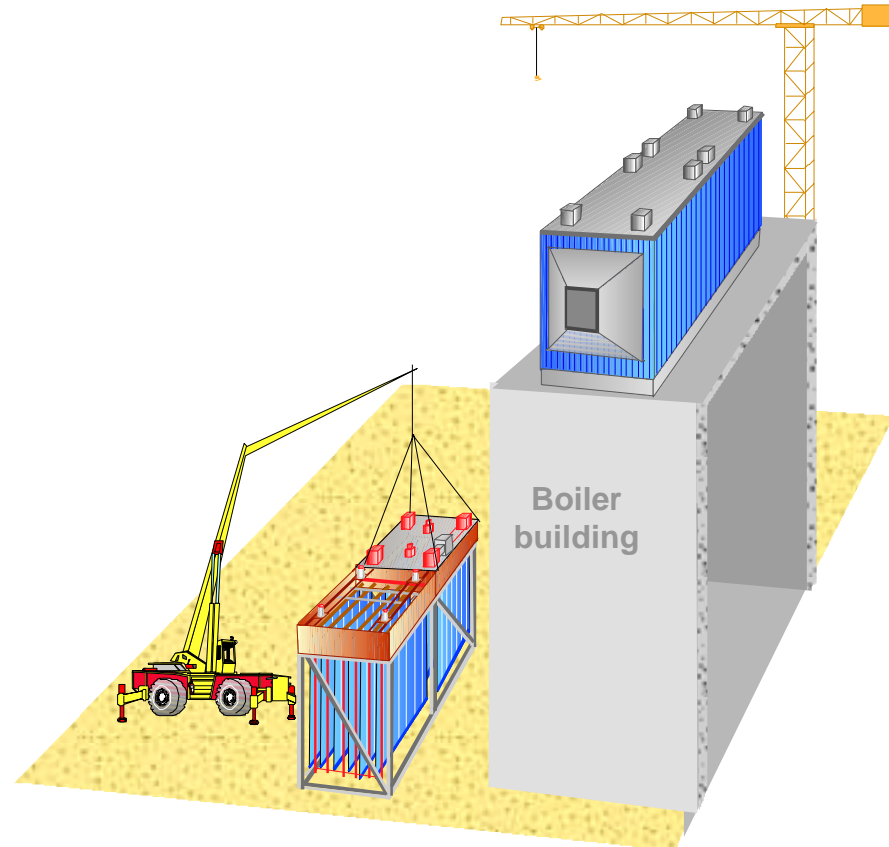
Erection of insulator chambers and T/R set



Erection of rapping gears in rack



Step 1
Existing ESP can still be in use



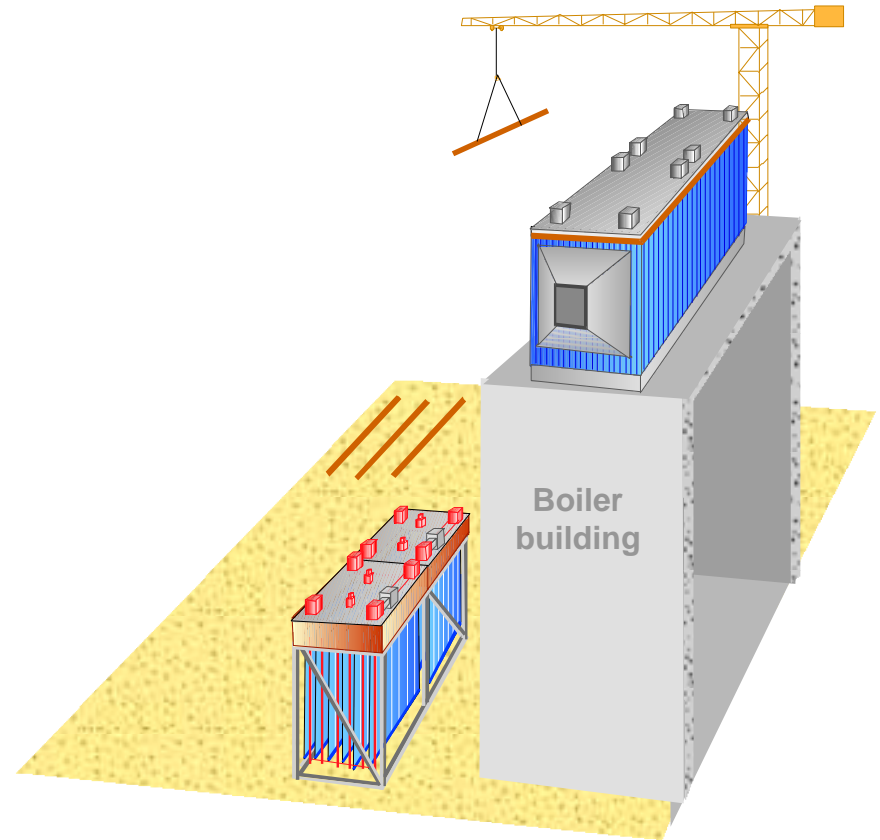
Concept 1-2-3 upgrading

Preparing of casing

Frame for reinforcement of casing



Step 1
Existing ESP can still be in use



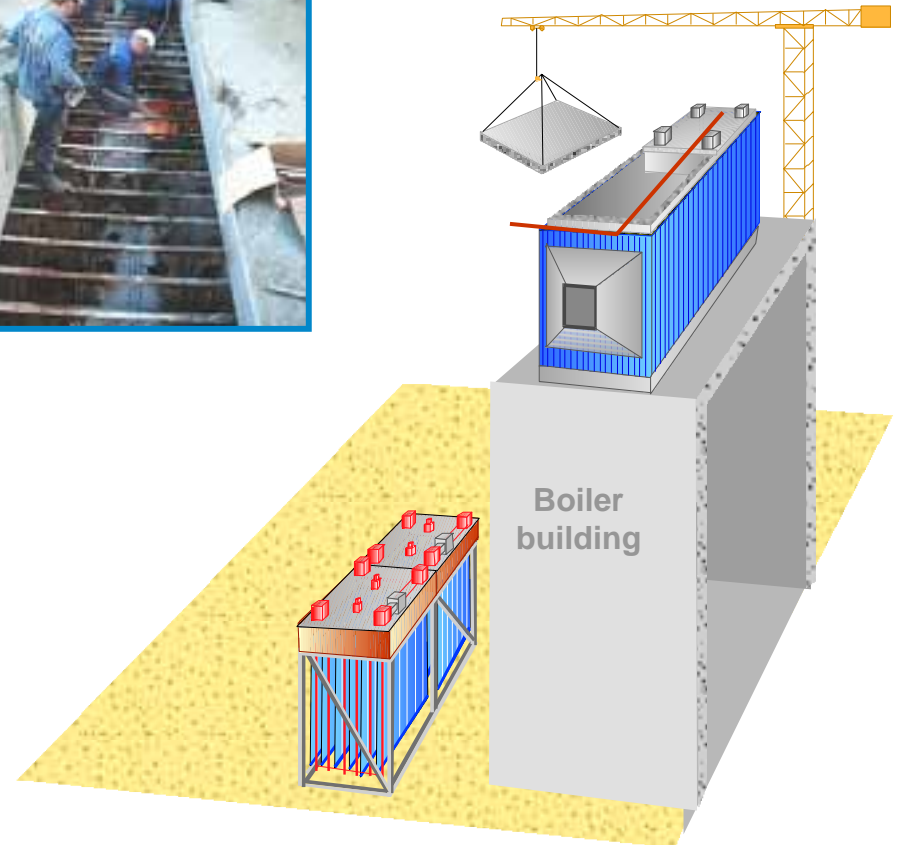
Concept 1-2-3 upgrading

Preparing of casing

Old roof and beams have been removed



Step 2
ESP can not be in use



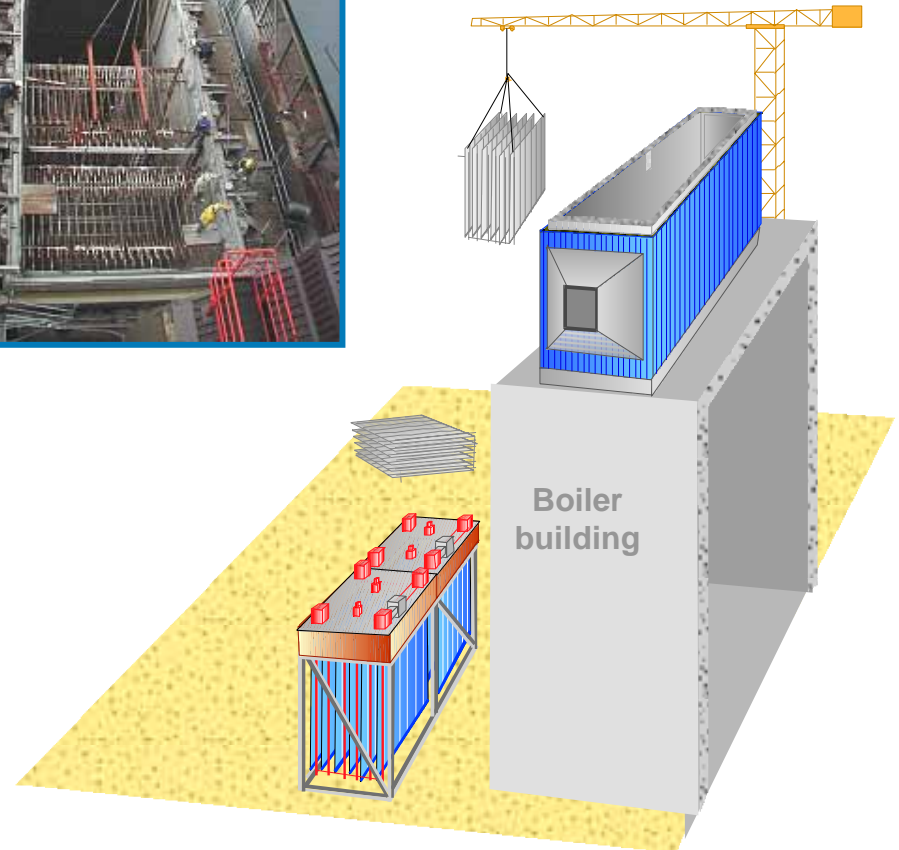
Concept 1-2-3 upgrading

Preparing of casing

Removing of old internals



Step 2
ESP can not be in use



Concept 1-2-3 upgrading

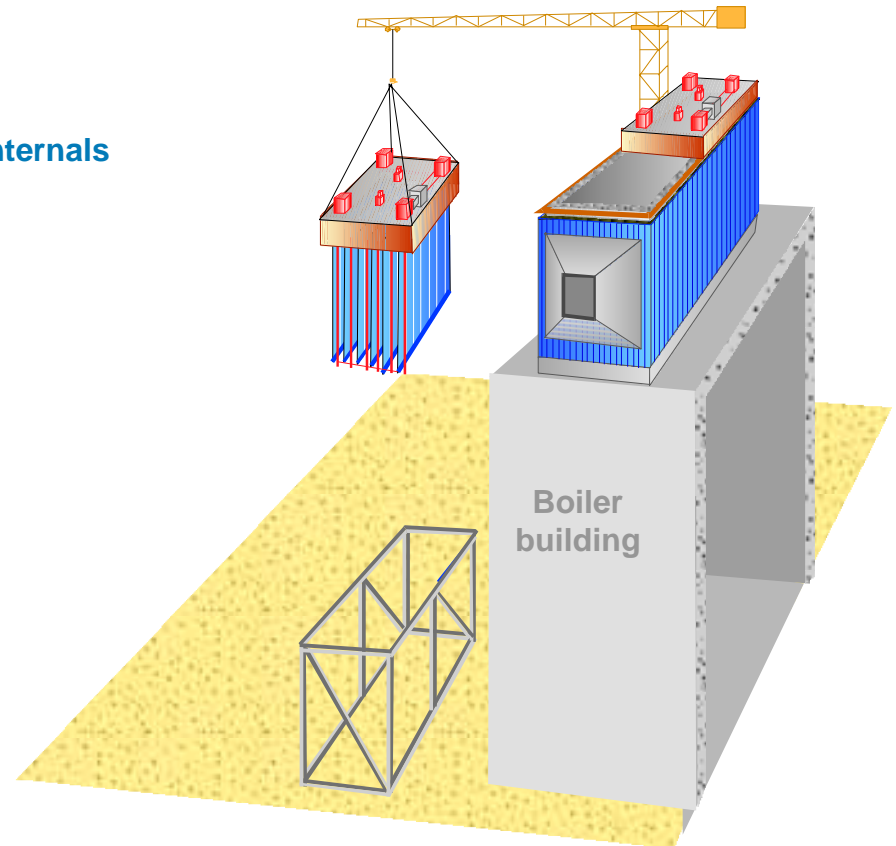
Erection of new equipment



Lifting in new internals



Step 3
ESP can not be in use



Concept 1-2-3 upgrading

Erection of new equipment

First field on it's place



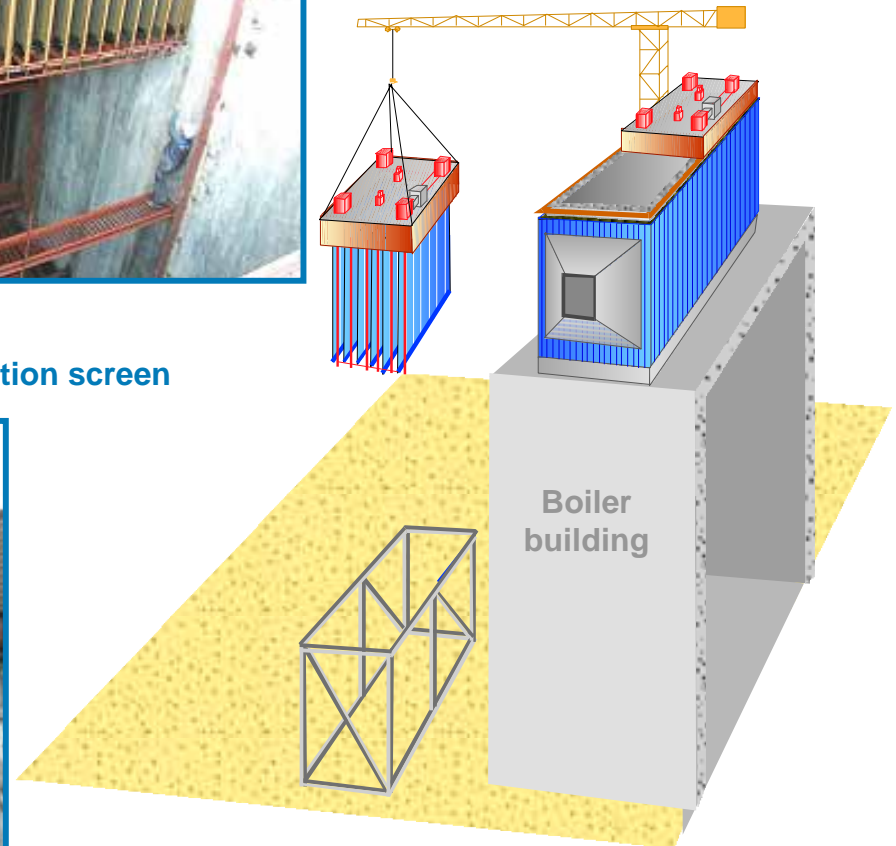
Placement of new field



New gas distribution screen



Step 3
ESP can not be in use

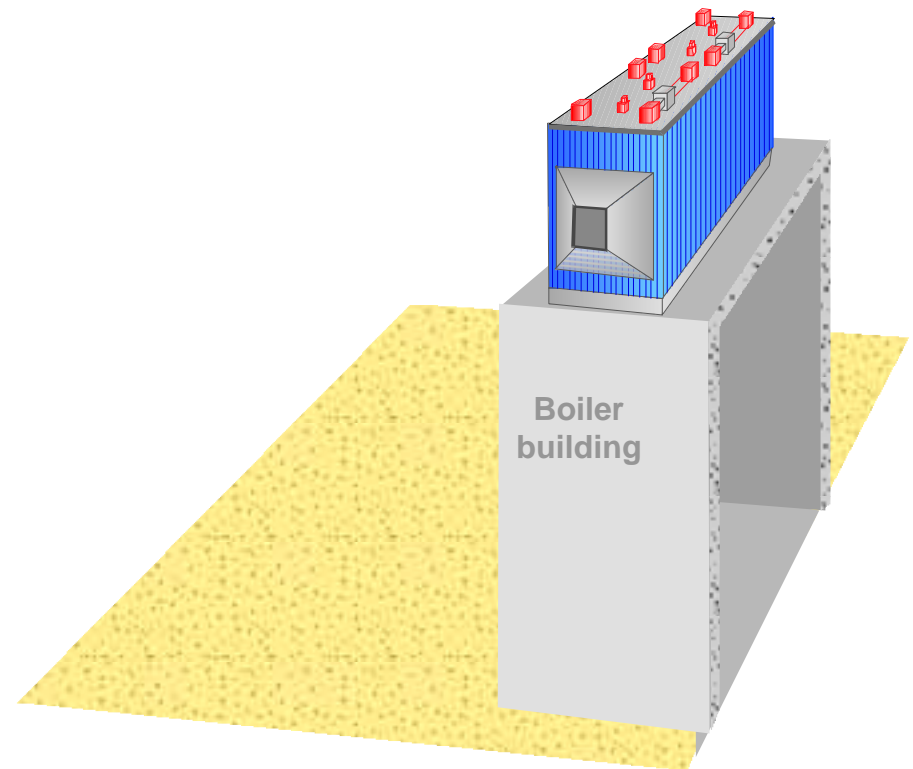


Concept 1-2-3 upgrading

Finalizing and adjustment



Step 3
ESP can not be in use



Concept 1-2-3 upgrading

Finalized

The shown upgrading example (3 fields) has been carried out in 12 days boiler stop time



Step 3
ESP can be taken in use

