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located at

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Final Report

of the project

“CLEAN TECHNOLOGY IN THE FISHERIES INDUSTRY”

Project No. : US/CHI/93/120
Purchase Order No. 15-6-1206-4
Activity Code No. : 0720A0

CONTRACT No. 96/206

SUMMARY

The preliminary report of the activity "Construction and installation of pilot plant of aerobic treatment of wastewater of fish meal industry", of contract No. 96/206, is presented.

The construction of the pilot plant (aerobic stage) was carried out by the contractor RUDEL S.A.

The following activities were carried out by the contractor:

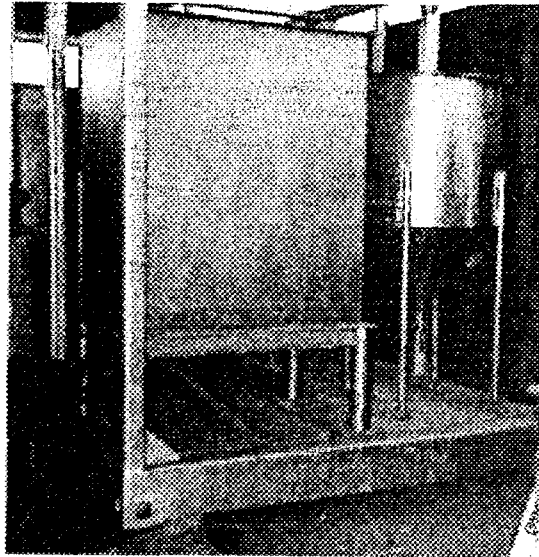
- 1) the construction, in stainless steel, of the following equipments: two aerobics reactors E-201 and E-202 (see figure 1), two tanks T-101 and T-102 (see figure 2), two decanters D-201 and D-202 (see figure 3), and one oxygen dissolver F-201 (see figure 4), and
- 2) the construction of a metallic structure (supporting equipment's) of standard dimensions same normalized Maritime Container of 20 feet (see figure 5).

The construction equipment's and of the metallic structure were carried out according to the specifications delivered in the "Technical Bases for the Construction of (Secondary Stage) Pilot Plant of Biological Treatment" and "Administrative Bases for the Construction of (First Stage) Pilot of Biological Treatment", both specifications were presented in the annexes of contract No. 96/206.

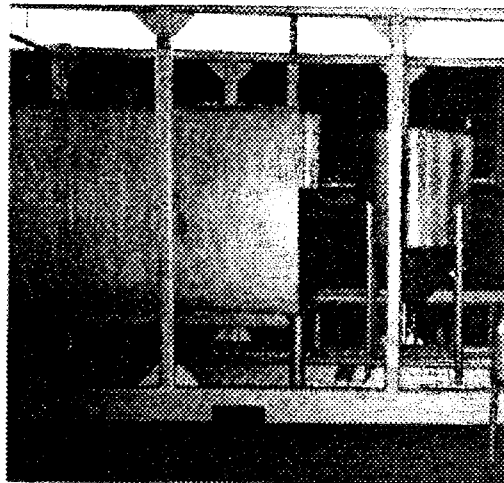
For to finish the construction, only is necessary to carry out the piping pilot plant; but, previously a this activity, it is required the instruments and the accessories (8 Centrifugal pumps, 2 Level sensors, 1 Gage pressure transmitter, 2 Thermal massflowmeters, 2 Thermal sensors, 1 Flow sensor, 3 Control valves, 2 pH analyzer system, 1 Propeller mixer, 2 Dissolved oxygen analyzer system, 1 Safety valve, 2 valves and 6 Peristaltic pumps). This instruments and this accessories are been purchased by the PNUD (solicited in November, 1996). By the other hand, the contractor has carried out the purchase of the all other materials required. In this manner, the work advance is estimated in 95%, this percentage also is related with the budget (see table 1).

Table 1: Budget	CHI \$(*)
Cost of finished activities	19.853.889
Total budget	20.898.830
Percentage	95,0%

(*) Chilean money

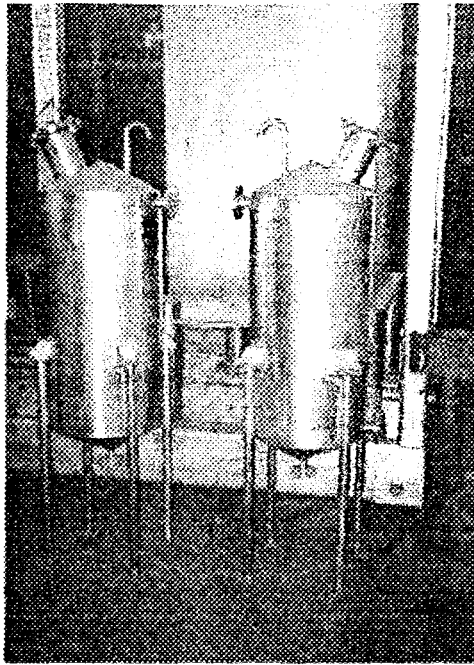


Reactor E-201



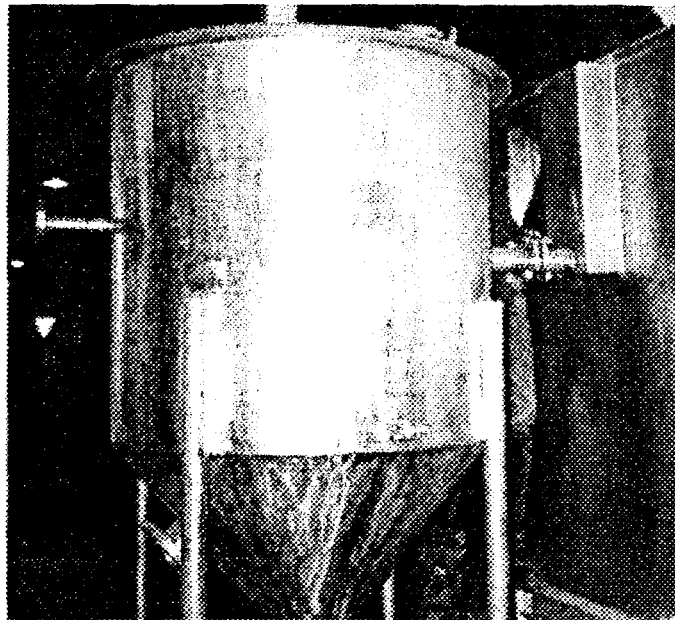
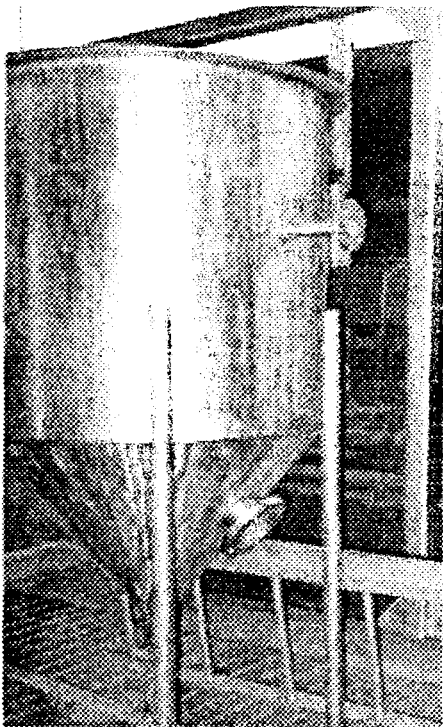
Reactor E-202

Figure 1



Tanks T-201 and T-202

Figure 2



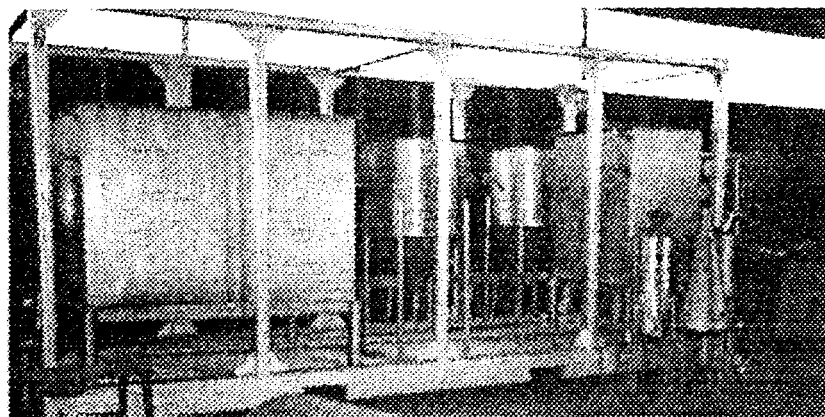
Decanters D-201 and D-202

Figure 3



Oxygen dissolver F-201

Figure 4



Metallic structure and aerobic pilot plant

Figure 5