

COMMENTS TO THE TENTATIVE INSTALLATION PLANNING

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The following assumptions are essential for the feasibility of the installation according to the tentative installation planning PS/FES 300-256-0.

1. SHUT-DOWNS

It is assumed that a shut-down of the accelerator will take place in August, 1971. During such shut-down the cables for the septum magnet will be laid between SS24 and SS26 and the EQR.

It is assumed that during a fortnightly stop of the accelerator lasting 3 days around September 20th, 1971, it will be possible to lay the kicker magnet cables between SS16 and the EQR.

Finally it is assumed that the accelerator shut-down intended for installation of the extracted beam will start at the beginning of October and last two months.

During December the machine will start running. It is expected that the large number of changes introduced will delay satisfactory operation of the accelerator somewhat. Furthermore the progress of tests on the extraction system may require frequent access to the ring and possibly breaking of the vacuum in the magnet tanks. It is therefore assumed that only a limited physics programme will be operated during December but priority will be given to the tests of the extracted beam in terms of scheduling and access to the ring.

2. MANPOWER AVAILABILITY

Before the shut-down intended for installation of the extracted beam, some operations have to be made under CERN supervision, in addition to the ones which are of complete responsibility of IHEP, like installation of the general cable network. These operations are :

2.1 Installation of the septum magnet pulse transmission cables.

It will take place in August 1971 under supervision of a CERN representative. It will require an estimated number of 8 IHEP people for 2 working weeks. The cables are of special construction and require considerable care in handling.

2.2 Installation of the tubing from the pump station to SS24

It will be carried out by two CERN pipe fitters starting possibly August 20, 1971. The help of two IHEP pipe fitters is expected for the whole tube installation, i.e. 3 months.

2.3 Installation of the kicker magnet pulse transmission cables

It will take place under supervision of a CERN representative around September 20th, 1971 during one of the regular stops of the accelerator. To be performed within the limit of 3 days it requires two shift operation with 8 man shift. The cables are of special semi-rigid construction and require extreme care : bending below permitted radius causes permanent damage to the cable.

During installation period it is assumed that 6 mechanics will be available to help with assembly of pulse generators, vacuum tanks and magnets (starting from Oct. 4, 1971) and one electrician to connect CERN equipment to the mains (starting from Sept. 20, 1971).

3. OPERATIONS IN THE RING

It is assumed that the work concerning the foundation and the floors in the straight sections is terminated by IHEP before Oct. 4th, 1971 and that removal of all IHEP equipment in the straight sections where CERN equipment is to be installed will take place before Oct. 13th, 1971. Thereafter all straight sections will be completely free of IHEP equipment and workers and made available to the CERN team for installation. During all the time when a CERN team is working on installation of heavy equipment in the ring, this team will have first priority on the use of the ring cranes.

4. OPERATIONS IN THE EQUIPMENT ROOM

All work executed by IHEP in the equipment room is terminated and the room is cleaned before Sept. 27th, 1971. This includes also piping for water, air, drain and the supporting pillars of the double floor and any new work to be executed between now and the installation.

5. OPERATIONS IN THE PUMP STATION

All work concerning the pump station (installation of draining reservoir, test support, piping for water, air and drain, etc.) and the steel supports for the hydraulic tubing in the tube trench should be terminated before August 20th, 1971. The hydraulic tube supports behind the radiation barrier and in the ring up to SS24 should be in place before September 27th, 1971.

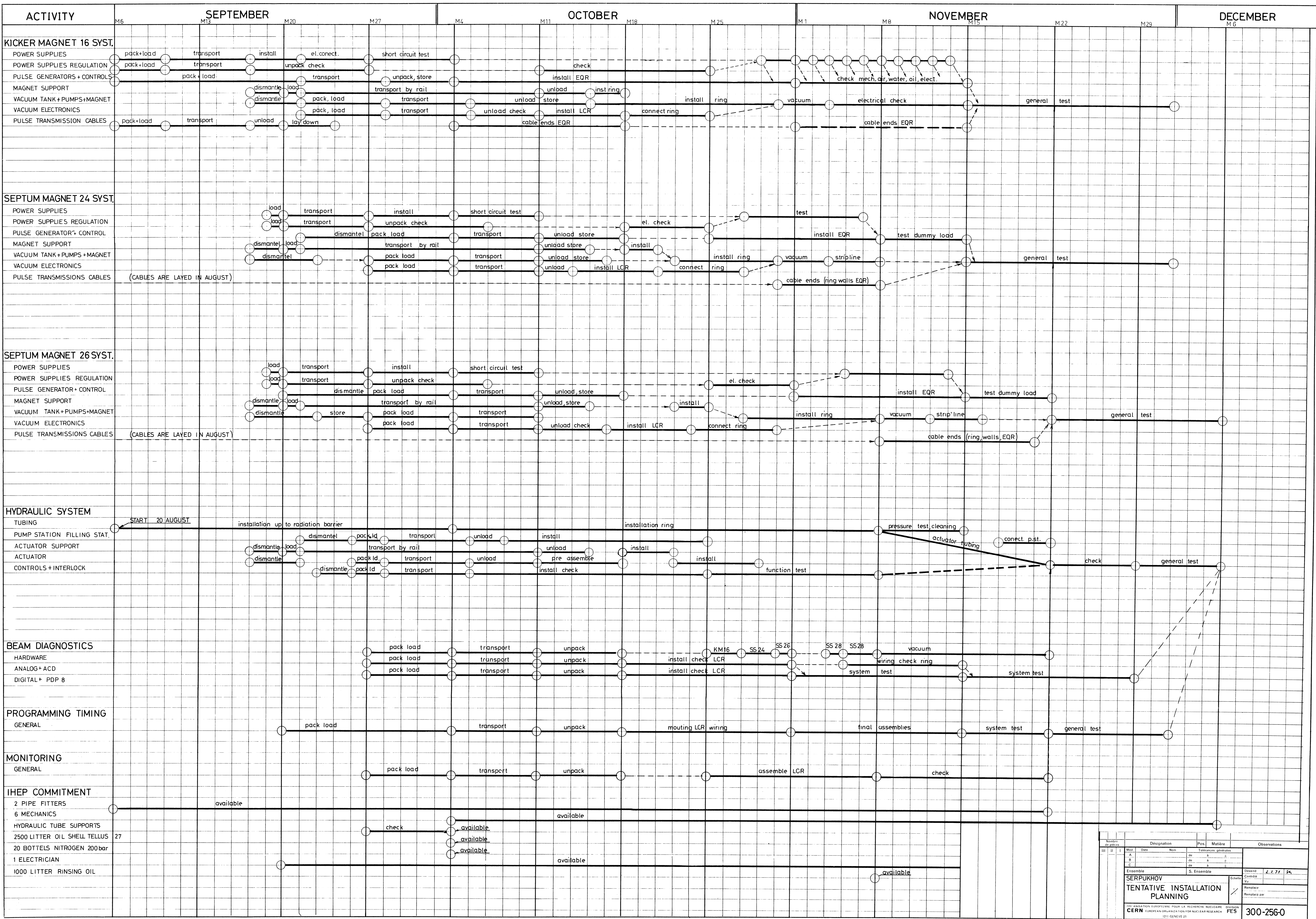
6. IHEP COMMITMENTS

- a) 2500 liters oil of Shell Tellus 27 type or similar, specified in the "Design Study" CERN/PS/FES/TN-49.

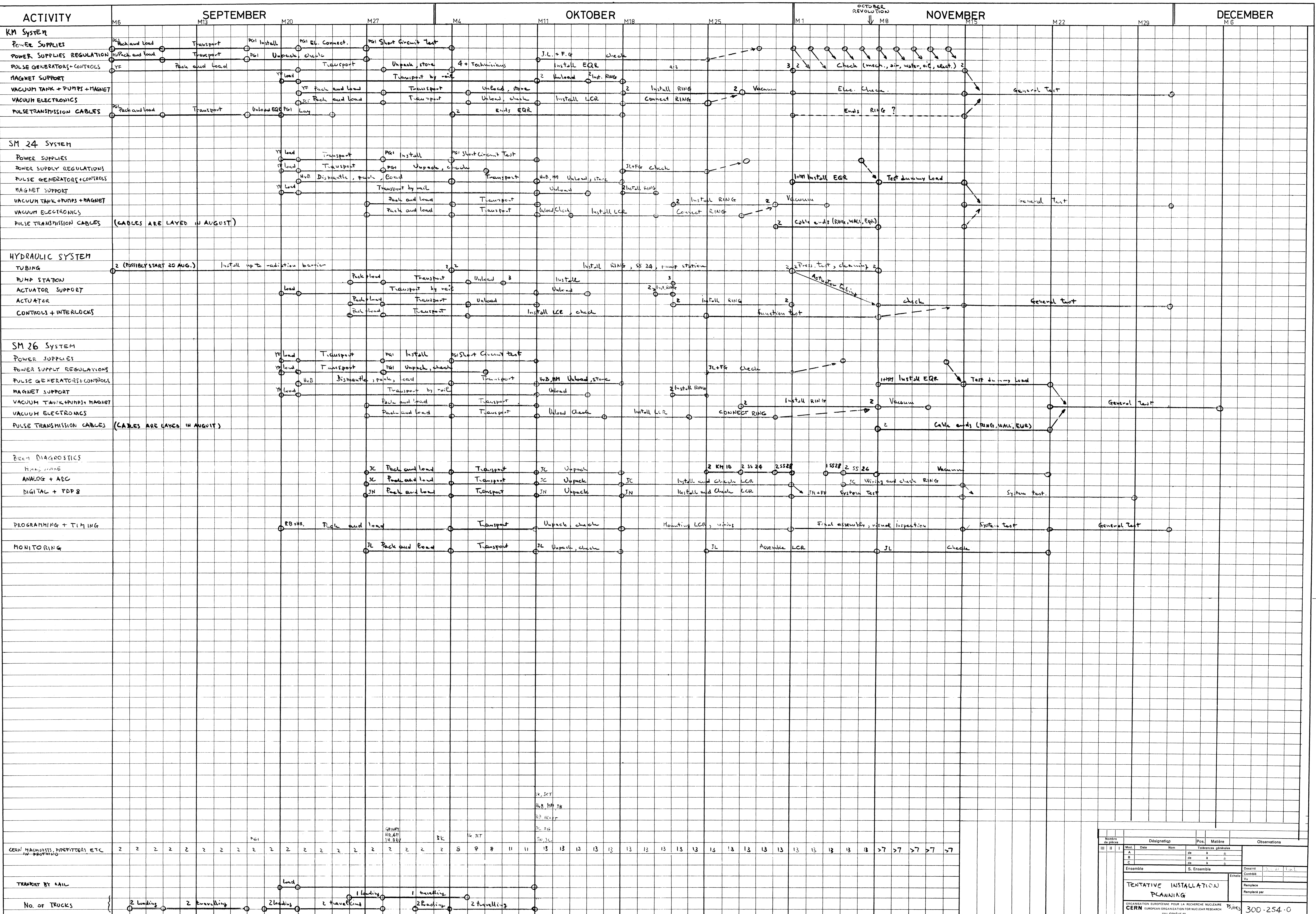
- b) 20 standard bottles of dry nitrogen of 200 bar must be available Oct. 4th. A supply of 2 bottles per day the first 2 weeks after November 8th must be available if necessary.
- c) Rinsing oil for the cleaning of the complete hydraulic tube installation, Shell Tellus 11 type or similar.
1000 liters light rinsing oil with a viscosity of 3 to 4° E at 20°C, available before November 1st.

6. STORING PLACE

Sufficient storing place well situated should be available at the arrival of CERN equipment.



Nomme de piece		Designation		Pos.	Matiere	Observations
III	II	Mod.	Date	Non	Tolerance generales	
A		de		de	±	
B		de		de	±	
C		de		de	±	
Ensemble		S. Ensemble			Designe	2.2.77 24
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Nombre de pièces		Désignation	Pos.	Matière	Observations
III	II	I	Mod.	Date	Nom
A			de		Tolérances générales
B			de		
C			de		
Ensemble		S. Ensemble		Quantité	à
				Remplace	Remplacé par
				Échelle	
				3/16	
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