

English for the students of Power

زبان تخصصی دانشجویان رشته برق

First session

New Words

Power station	sources	coal	oil	natural gas	nuclear
نیروگاه برق	منابع	زغال سنگ	نفت	گاز طبیعی	هسته ای
Plant	steam	cycle	pure	heat	boiler
نیروگاه	بخار	چرخه	خالص	گرم شدن	دیگ بخار
Produce	pressure	temperature	drive	generator	couple
تولید کردن	فشار	دما	حرکت دادن	ژنراتور	وصل شدن
Amount	transfer	latter	exhaust	condense	
مقدار	انتقال دادن	دومی	تخلیه کردن	متراکم کردن	
Impure	coastal	distance	quantity		
ناخالص	ساحلی	فاصله	مقدار		

Power stations

There are five sources of energy which together form nearly all the world's electricity. They are coal, oil, natural gas, power and nuclear energy. Coal, oil and nuclear plants use the steam cycle to turn heat into electrical energy, in the following way. The steam power station uses very pure water in a closed cycle. First it is heated in the boilers to produce steam at high pressure and high temperature, 150 atmospheres and 550° C in a modern station. This high-pressure steam drives the turbines which in turn drive the electric generators, to which they are directly coupled. The maximum amount of energy will be transferred from the steam to the turbines only if the latter are allowed to exhaust at a very low pressure. This can be achieved by condensing the outlet steam into water. The water is then pumped into the boilers and the cycle begins again. At the condensing stage a large quantity of heat has to be extracted from the system. A much larger quantity of cold impure water enters one side of the condenser and leaves as warm water. At no point must the two water systems mix. At a coastal site the warmed impure water is simply returned to the sea at a point a short distance away.

دانشجویان محترم کلمات جدید را حفظ و سعی کنید متن داده شده را به فارسی ترجمه کنید .

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