Text C $S0_2$

The regulation of $S0_2$ emissions was primarily a consequence of the anxiety in the 1980s about acid rain and its effect on forests and lakes. Even though it later proved that the effect on forests was extremely slight or even non-existent, regulation had the positive side-effect that it reduced particle emissions. When SO_2 is emitted during combustion, part of the gas will oxidize and condense around tiny, unburned condensation nuclei to form particles. The greatest advantage of SO_2 emission reductions lies in avoiding these particles.

In addition, $S0_2$ damages buildings and cultural objects such as statues. Metal corrodes much faster. Marble and sandstone are damaged because SO_2 is converted into sulfuric acid which gradually eats away the stone. In the major US study the overall effect was found to be relatively minor. Sulfur dioxide can also reduce visibility, either as a light mist or as a dense gray smog like the smog familiar to Londoners. The cost of the reduced visibility in 1990 can be estimated at $12 per person in the US.

Finally, when $S0_2$ is deposited it actually makes a free contribution to the fertilization of forests and agricultural crops in particular. This contribution is estimated to be worth some $500 million annually in the US. In Denmark, where sulfur pollution was the highest, crops needing lots of sulfur (such as oilseed rape and cabbage) had their requirements covered through pollution. It is today unnecessary to give these crops extra sulfur.

In 1979 the Long-Range Transboundary Air Pollution convention was adopted in Helsinki, coming into force in 1983. First, in 1985 a strict protocol was signed, obliging European governments to reduce their emissions by 30 percent by 1993. But European emissions had already been on the decrease since 1975. The reduction has been achieved by changing to other sources of energy, using less sulfurous coal and the general use of smoke cleansing. European Union emissions have been declining steadily since 1980. The emissions are expected to decline further, to a total reduction of more than 75 percent by 2010.

VOCABULARY:

Anxiety	Тревога	Sandstone	Песчаник
Exposed	Беззащитный	Sulfuric acid	Серная кислота

Slight	Хрупкий	Sulfur dioxide	Диоксид серы
To oxidize	Окисляться	Visibility	Видимость
To condense	Конденсировать	Mist	Туман
Condensation	Конденсация	Roughly	Небрежно
Side-effect	Побочный эффект	To deposit	Образовывать налет, отлагаться
Nuclei	Ядро	Fertilization	Удобрение
To corrode	Ржаветь	Oilseed rape	Масличный рапс
Marble	Мрамор	Requirement	Требования
Cleansing	Очистительный	Steadily	Постоянно
Amendment	Поправка	Transboundary	Трансграничное

EXECISE 1

Найдите в тексте ответы на следующие вопросы: 1. Насколько важна роль диоксида серы в образовании кислотных дождей? 2. Как образуются частицы диоксида серы? 3. В результате чего было достигнуто снижение загрязнения диоксидом серы? 4. Назовите положительное последствие от загрязнения диоксидом серы? 5. Перечислите виды отрицательного воздействия диоксида серы на окружающую среду?

EXECISE 2

Найдите эквиваленты: вступить в силу, быть подписанным, другие источники энергии, иметь побочный эффект, образование частиц, бесплатное удобрение, быть оцененным стоимостью в, относительно маленький, удовлетворить потребности, незащищенные регионы, знакомый лондонцам, повсеместное использование оборудования по очистке дыма.

EXECISE 3

Найдите и переведите названия трех основных международных документов, принятых в защиту от данного загрязнителя?

EXECISE 4

Составьте фразы, соответствующие содержанию текста.

	the fertilization.
1. Sulfur dioxide makes a free contribution to	industry development.
	emission reduction.

	combustion.
2. Sulfur dioxide is emitted during	condensation.
	oxidization.

	sulfuric dioxide.
3. Sulfur dioxide is converted into	particles.
	gas.

	pollution.
4. Sulfur dioxide can reduce	visibility.
	fertilization.