(b) whether it is also a fact that the nuclear power plant and the Heavy Water plant at Kota have been costly failures?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY ELECTRONICS AND SPACE (SHRI K. R. NARAYANAN): (a) USSR has offered to assist in the setting up of a nuclear power plant in India. Discussions on the technical, financial and other aspects of the offer are continuing with the Soviet authorities.

(b) Unit 2 of Rajasthan Aomic Power Station and Heavy Water Plant at Kota are operating satisfactorily. Unit 1 of R. A. P. S. has encountered a problem with the appearance of cracks in its south end shield. Several approaches are being examined for rehabilitation of the unit. The experience of R. A. P. S. 1 has been valuable for the design of heavy water reactors envisaged in the nuclear power programme.

## Shafting down of Dhrura Reactor at the BARC

- 2317. SHRI KAPIL VERMA: Will tho PRIME MINISTER be pleased to state:
- <a) whether the j^restiglfous 100 MW research reactor 'Dhruva at the BARC was shut down some time back; if so, what are the reasons therefor;
- (b) what was the estimated loss of production as a result thereof;
- (c) what are the reasons for not consulting Regulatory Board and for not following its instructions by the BARC; and
- (d) what measures are being taken by Government to remove defects in the reactor?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATMIC ENERGY, ELECTRONICS AND SPACE (SHRI K. R. NARAYANAN): (a) Dhruva was

- made critical on 30th October with, the fuel bundies of altered design for a few hours. This was primarily to test the cont rol systems. The reactor was shutdown for further loading. This  $ha_s$  now been ) accomplished and the reactor has gone into operation satisfactorily with effect from 25th November 1986.
- (b) This is a reactor for research purposes and hence there is no question  ${}^{\circ}t$  loss of production.
- (c) Experiments with Dhruva have always been carried out in close consultation with the Atomic Energy Regulatory Board.
- (d) There were no defects as such. H the reactor. Vibrations experienced by the fuel rods were high. Hence the design > has been altered to meet the situation. The New design has been tested for over a 1000 hrs. and has proved to be successful.

## Relay of programmes other than National Network from Madras Doordarshan

2318. SHRI M. VINCENT: SHRI R. T. GOPALAN:

Will the Minister of INFORMATION AND BROADCASTING be pleased to state:

- (a) whether it is a fact that Madras Doordarshan is relaying its own program mes from Kodaikanal T. V. station in place of the National net work; and
- '(b) if not, what are the reasons {or delay in relaying the Madras programme?

THE MINISTER OF STATE OF THE MINISTRY OF INFORMATION AND BROADCASTING (SHRI AJIT PANJA): Ka) No, Sir.

(b) Relay of programmes produced at Doordarshan Kendra Madras by the TV transmitter at Kodaikanal would be possible only after the TV-bearer micro wave, link between Madras and Kodaikanal is commissioned into service by the De partment of Telecommuncation. This I'nfc is now nearing completion.