"Summary ALARA OPTIMIZATION Compressed air filtration for Breathing" Seong-Gyu Leem, Hanil Nuclear Co. (Korea)

Compressed air to supply clean air breathing to workers inside steam generator contains moisture and small particles by pipe corrosion. It may be not suitable for human breath. Further, hot and humid environment increase human temperature and cause of the fatigue.

To improve these situations, several developments have been done.

- \cdot 2 air filter installation
- clean air supply by removal dust and oil mist
- removal of virus and vacteria in the air
- · compressed air cooling system installation
- cold and hot air separation by vortex and supply fresh air to worker
- maintain fresh condition internal workware and prevent mist by supplying cold air
- regulator installation
- regulator for suitable air supply in worker's breath
- when air supply connector need, extension possibility

Expected effects are as follows;

- reducing working time & working environment improvement
- improvement of the working condition by filtration & supply fresh air
- to prevent mist contributes reduction working time & quality
- comfortable working environment by fresh air supply
- $\boldsymbol{\cdot}$ can be used in low level air room and close chamber etc..
- application possibility to that oxygen closeness space work and so on