

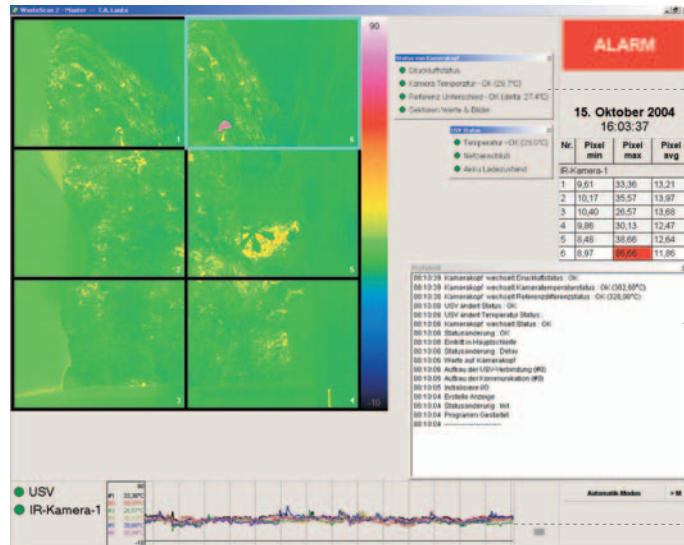
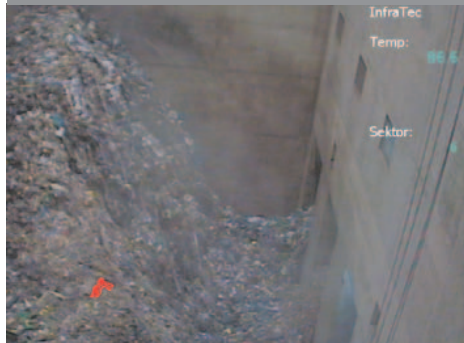
## WASTE-SCAN

Infrared Monitoring System for Early Fire Detection

### Powerful Software

- continuous display of current thermal images of all sectors
- simultaneous live image (monochrome thermal or colour video image)
- merging of current thermal and video image (optional)
- recording of maximum, minimum and mean temperature of each sector
- representation of temperature-time-curves for all sectors
- image data storage
- operation logging
- camera and system status indication

Monitor image with merged hot spot



alarm indication

status indication

temperature values

operation logging

control mode automatic/manual

temperature-time-graphs

### Alarm Release and System Monitoring

- automatic alarm release when signals exceed critical temperature thresholds
- realisation of multi-level alarms with adjustable warning and alarm threshold values
- evaluation of long-term temperature trend with adjustable time basis
- documentation of alarm situations for analysing fire formation

## WASTE-SCAN

Infrared Monitoring System for Early Fire Detection

- Automated early detection of waste bunker and dump fires
- Continuous monitoring of waste bunkers, dangerous materials depots and dumps
- Prevention of toxic air pollution emissions
- Established fire-protection system



## WASTE-SCAN

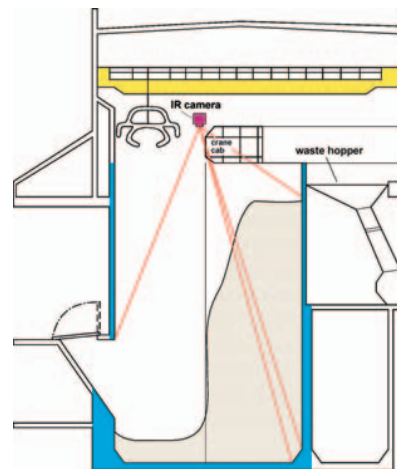
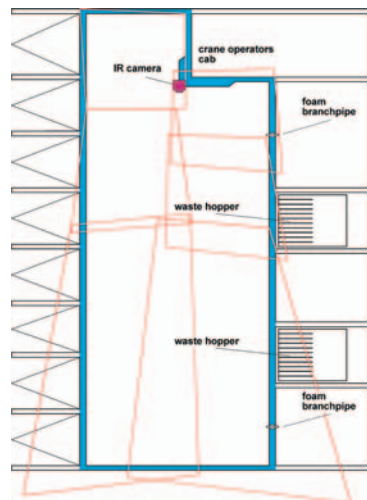
### High-resolution Thermographic Camera VarioCAM®

- uncooled FPA-Microbolometer detector
- (320x240) pixel for high geometrical resolution
- high-contrast, low-noise thermal image
- localisation of hot spots, even in dusty ambiance or smoke
- spectral range (8 ... 13)  $\mu\text{m}$
- frame rate 50 / 60 Hz
- real-time data acquisition (opt. FireWire IEEE1394)
- internal automatic calibration
- rugged housing for industrial applications (IP 65)
- additional colour video camera (optional)



### Complete Bunker Monitoring

- with one single thermographic camera by means of a pan-tilt head
- automated scanning of several inspection sectors
- maximum cycle period < 2 minutes
- sector position accuracy < 0,2°
- switch to manual control for observing suspect spots and evacuating critical objects



## Infrared Monitoring System for Early Fire Detection

### Customised System Design

- suited for sustained continuous operation 24 hours / day
- transfer of thermal images from the camera to a central control room
- flexible wiring technology (copper or fibre optics)
- colour displays and control panels in crane operators cab and master display room
- uninterruptible power supply - UPS (optional)
- system maintenance at PC in control cabinet (optional remote control)
- large surface black body reference for atmosphere transmission compensation (optional)

