

Conditions of the gas pipeline damaged by third party constructions and prevention

July.9,2009

Keiyo Gas Co.Ltd

Piping Dept.



Contents

- 1 .Current state of gas pipeline damage accidents caused by third party constructions in Japan
 - ① Matters to be reported to regulatory authorities accidents
 - ② Status of occurrence of accidents
- 2 . Our major approaches to prevent damages of gas pipeline caused by third party constructions
 - ① Third party constructions on roads
 - ② Third party constructions within housing sites

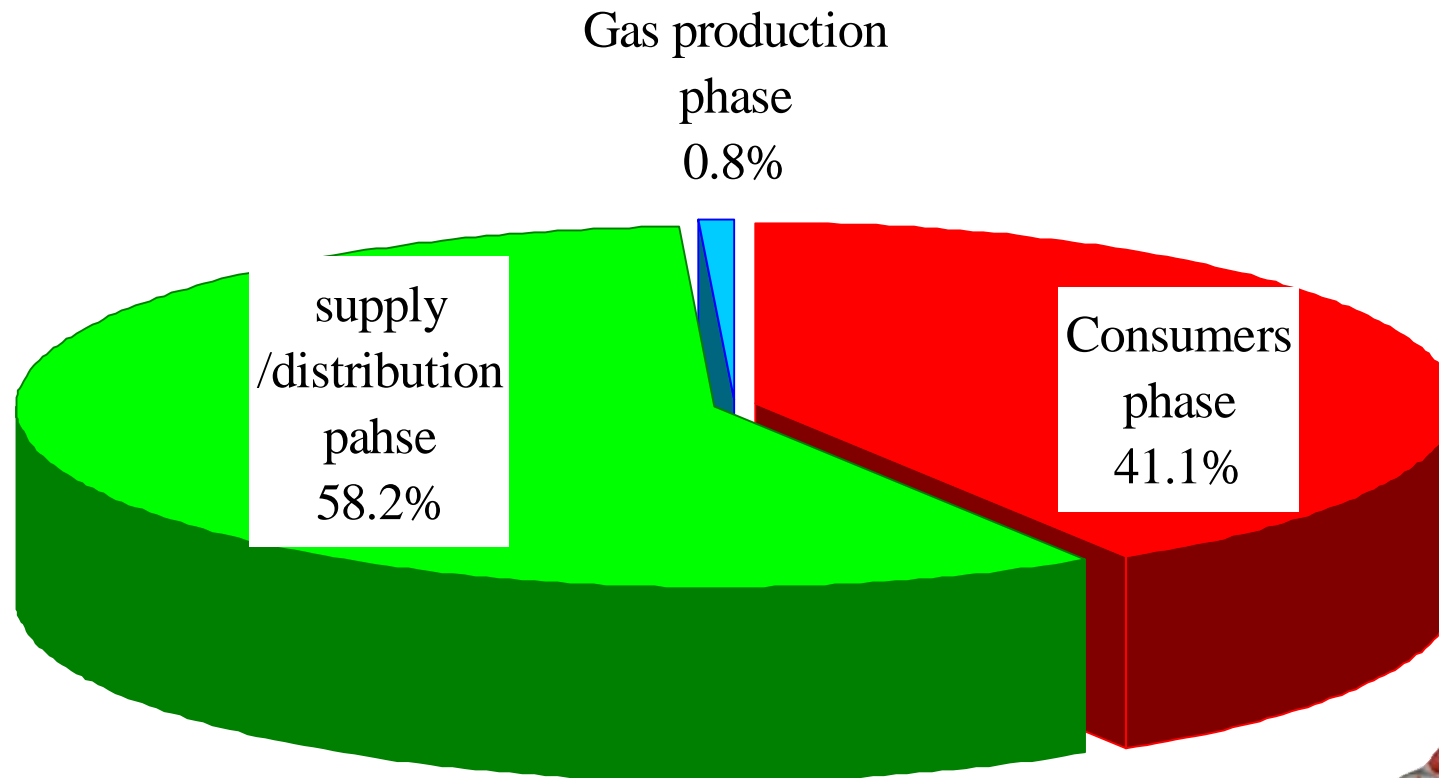


Matters to be reported to regulatory authorities accidents

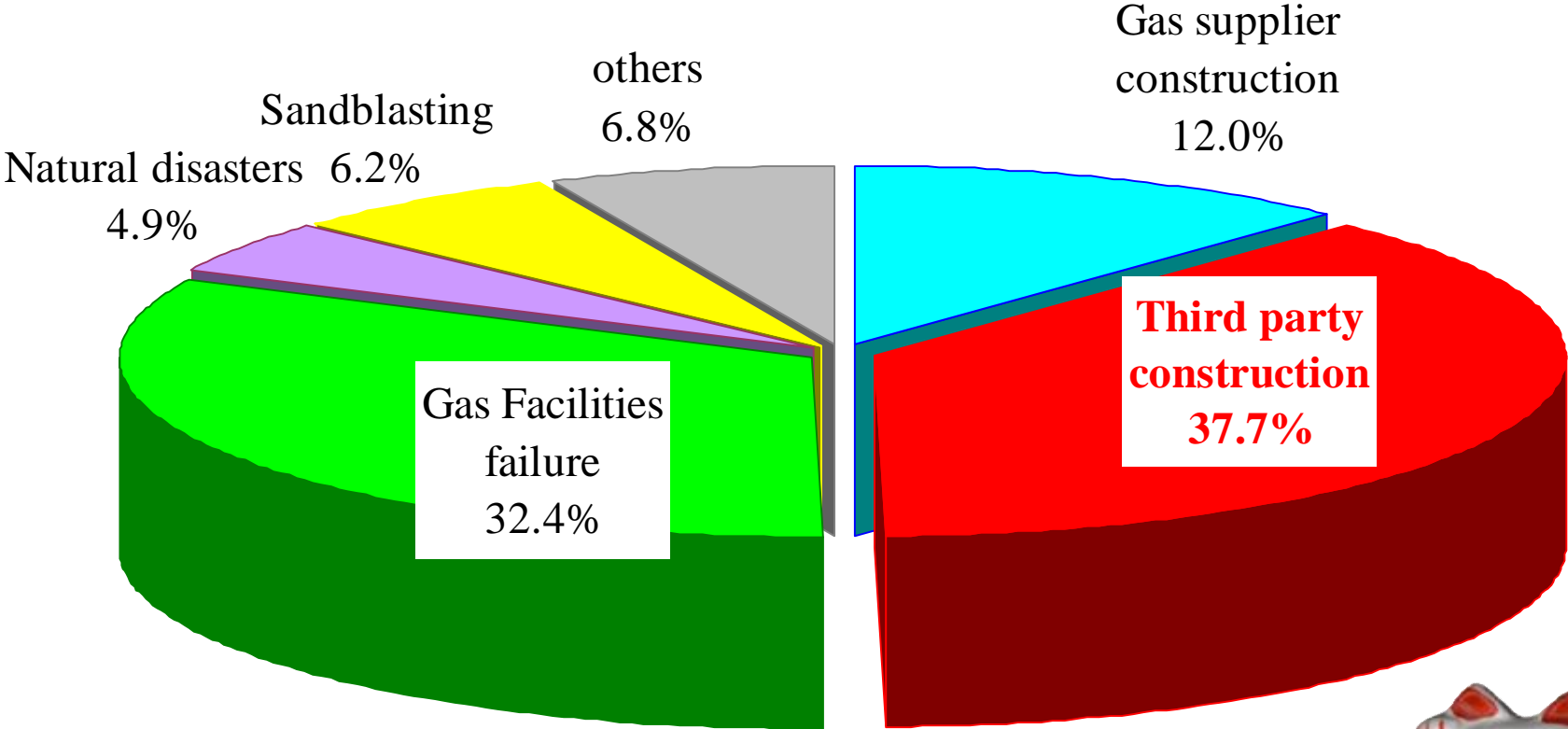
- | Physical injury and damage due to Gas Facilities (Death, Poisoning, Injury)
- | Hindrance Gas Production
- | Supply/distribution stoppage of more than 30houses
- | Main Gas Facilities damage
- | Explosion or fire due to gas leakage from Gas Facilities
- | Gas Facilities damage or Supply/distribution stoppage caused by natural disasters
- | Evacuation or traffic difficulties due to Gas Facilities damage
- | Physical injury and damage due to the use of gas appliances or gas valve (Death, Poisoning, Injury)
- | Injury or property damage caused by flammable gas leaked from the gas valve or the gas appliances



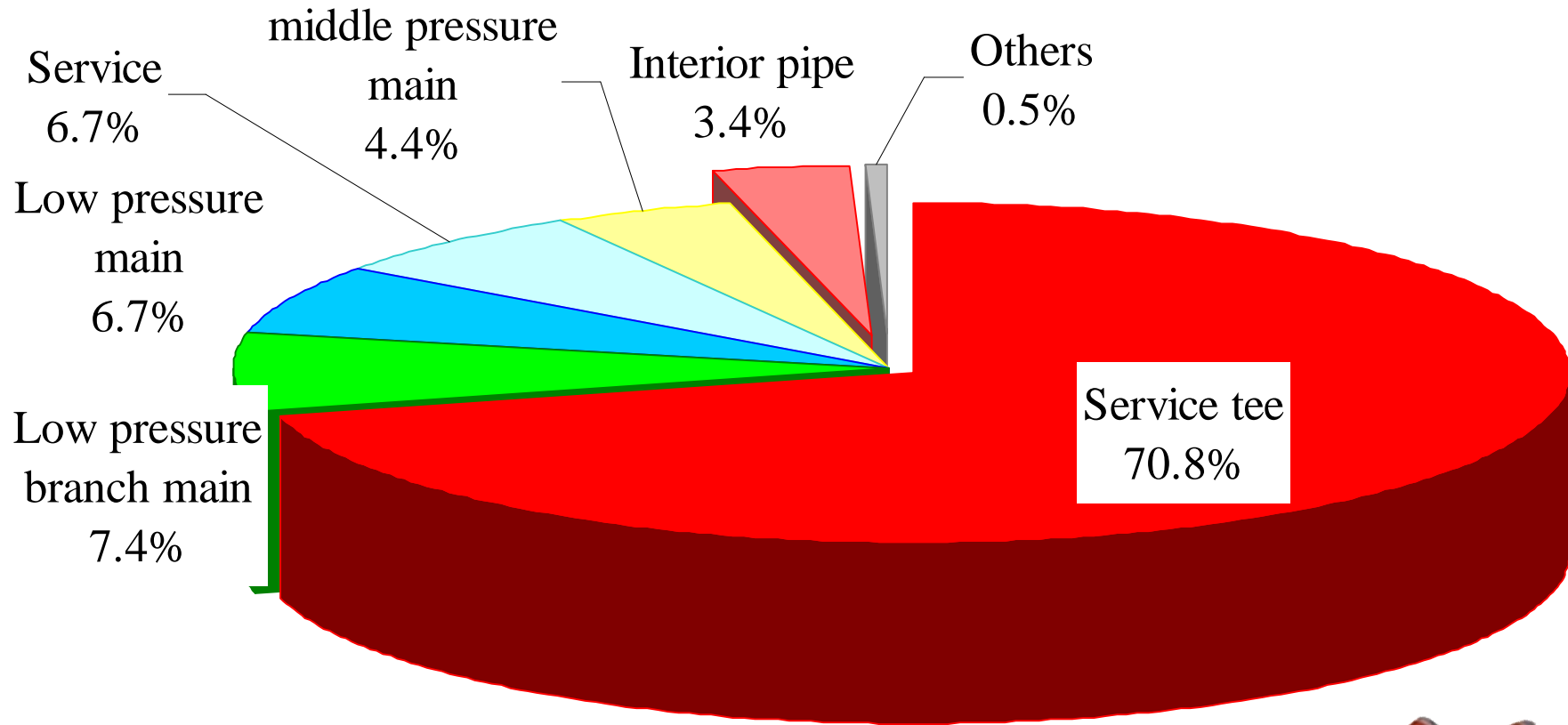
The status of occurrence of accidents that are to be reported to regulatory authorities(2003~2007)



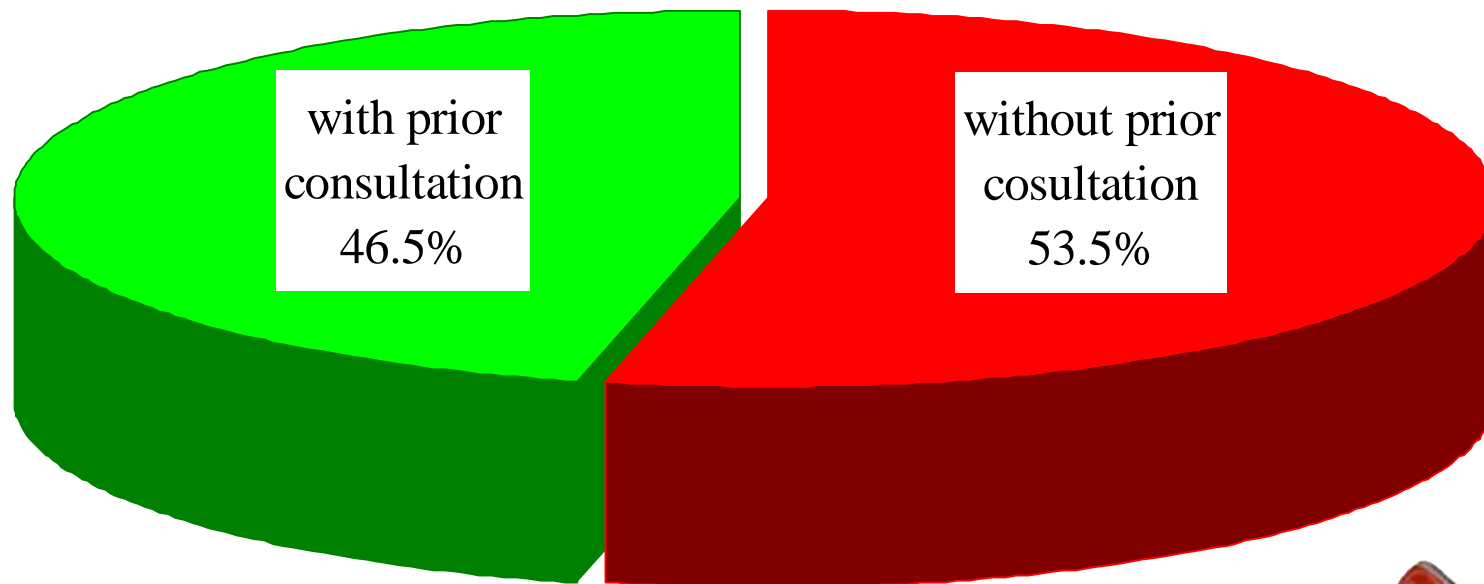
The status of occurrence of accidents that the supply/distribution phase



Items of damaged portion



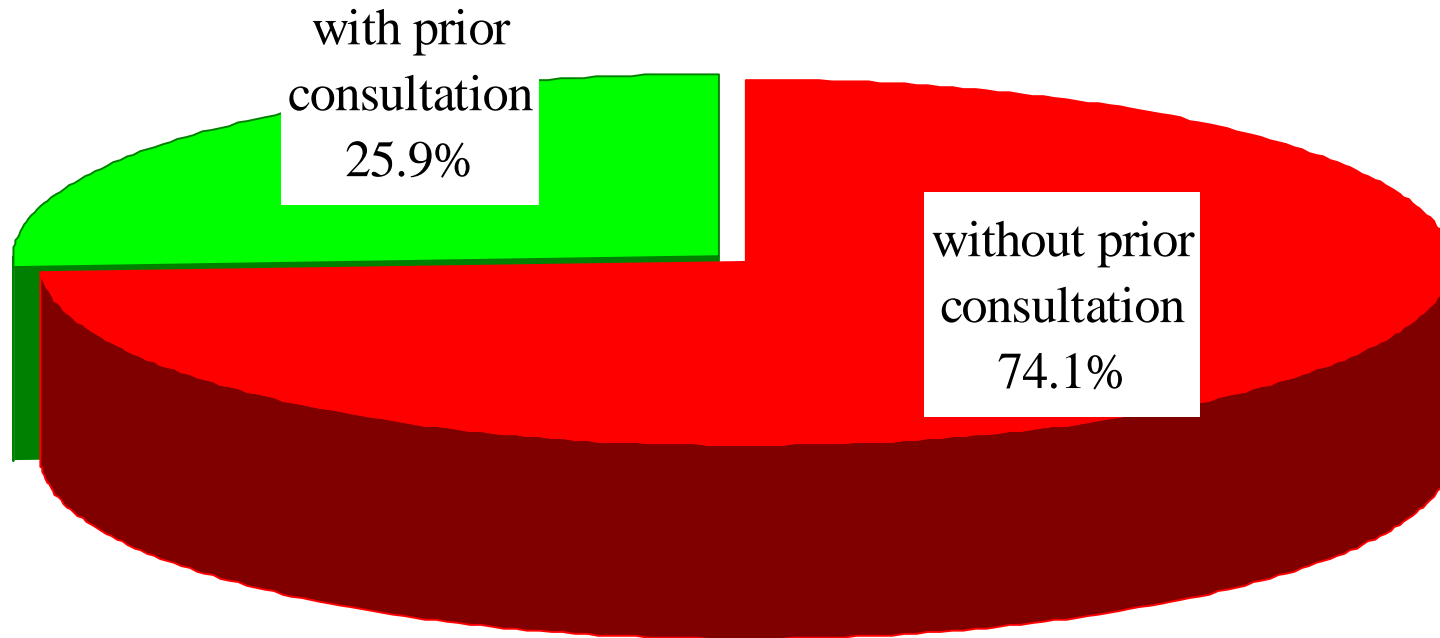
The status of prior consultation with gas supplier



On roads



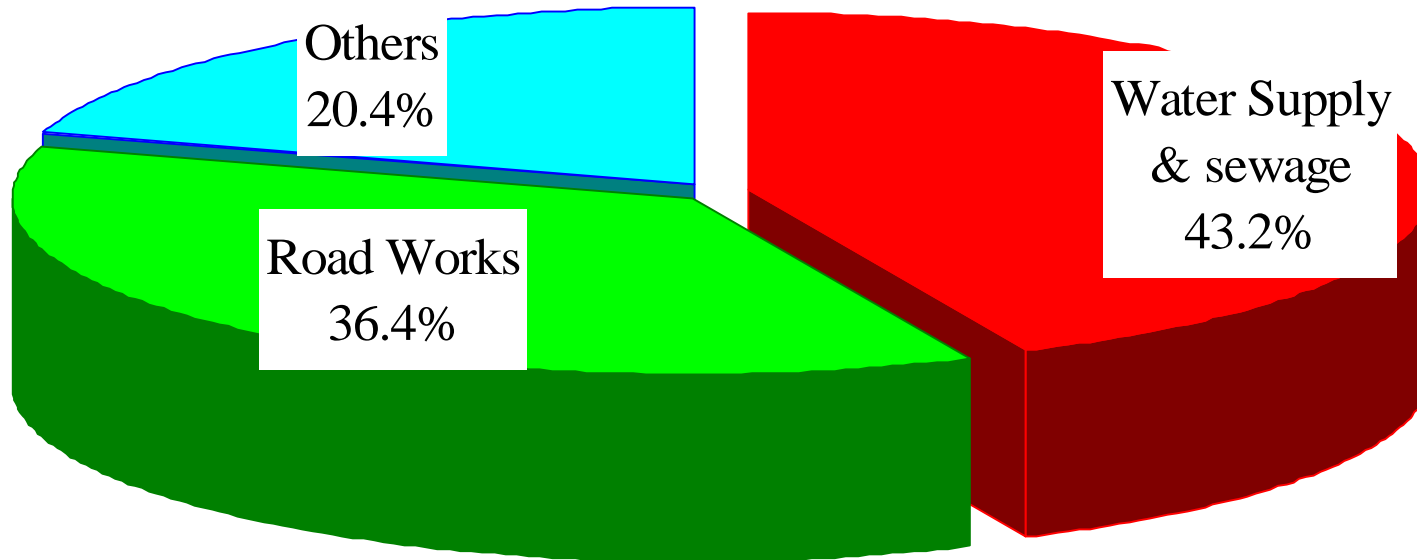
The status of prior consultation with gas supplier



Within housing sites



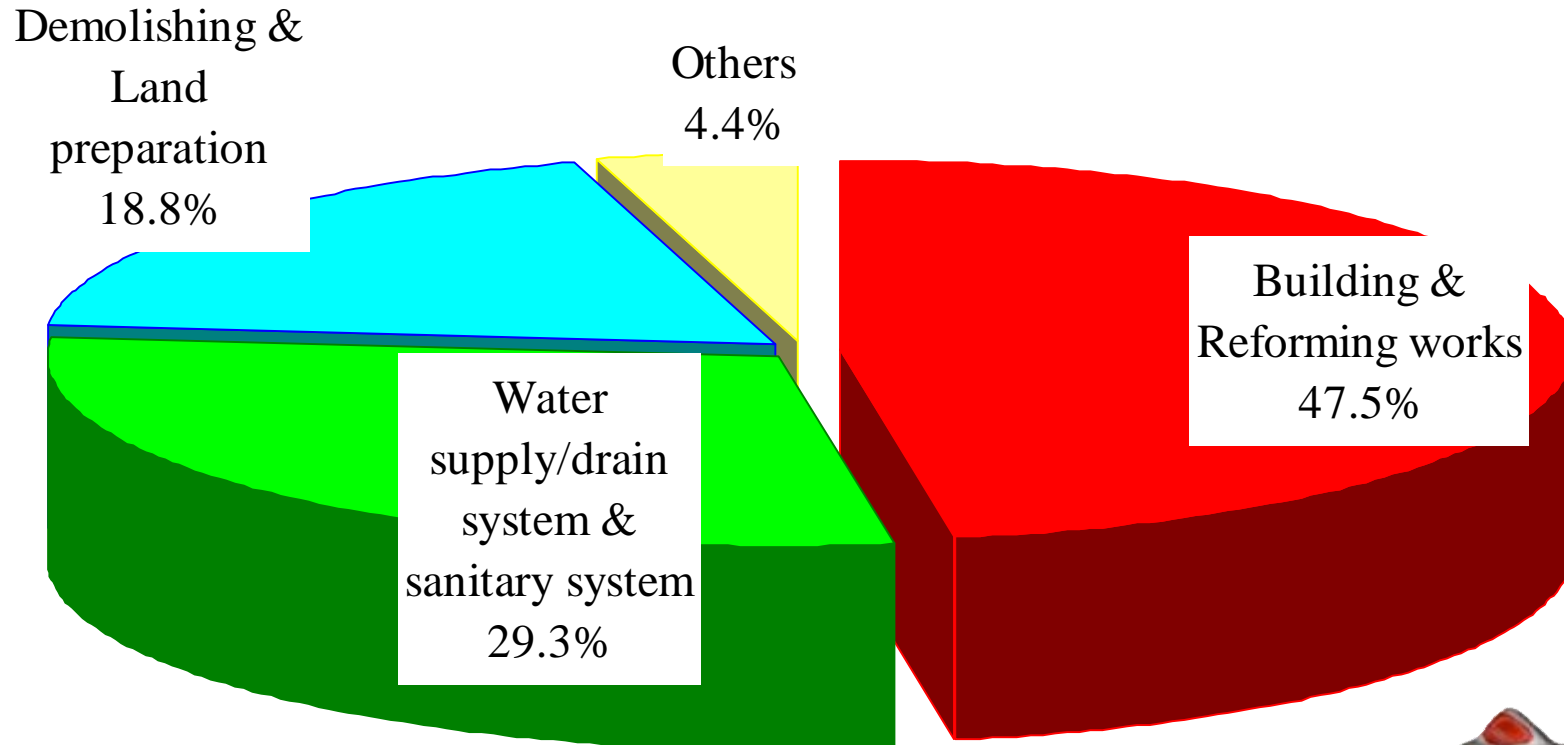
Type of third party constructions



On roads



Type of third party constructions



Within housing sites



Major reasons of damages by third party construction

| On roads

Without prior consultation with gas supplier

- ▶ Works using construction machineries **without confirming piping status**

With prior consultation with gas supplier

- ▶ Enough **information** of the work site such as piping status was **not given to construction machine operators**
- ▶ Third party constructions were **carried out without complying with conditions agreed with gas supplier**



Major reasons of damages by third party construction

| Within housing sites

Without prior consultation with gas supplier

- ➡ Works using construction machineries **without confirming piping status**
- ➡ Contractors of third party constructions so **misjudged the surrounding situation that no gas was running in the pipeline**

With prior consultation with gas supplier

- ➡ Enough **information** of the work site such as piping status **was not given to construction machine operators**
- ➡ Third party constructions were **carried out without complying with conditions agreed with gas supplier**



Our major approaches to prevent damages of gas pipeline caused by third party constructions (On roads)

- **Collection of information related to third party constructions**
 - ◆ Driving conclusion of security agreements and protection agreements
 - ◆ Collection and management of information on construction plans to be obtained at meetings for coordination of related works such as coordinated scheduling for works on roads
 - ◆ Carrying out of patrols of major routes and routine site inspection for identifying works without prior consultation and discussion
 - ◆ Sending direct mails to clients/owners



Our major approaches to prevent damages of gas pipeline caused by third party constructions (On roads)

- Encouraging all people concerned with third party constructions for damage prevention
- Giving explanation of importance of prior consultation and discussion
- Requesting to site workers to ensure to refrain from earthworks by machines around piping areas
- Requesting to ensure all people concerned including supervisors and site workers to share information related to piping status



Our major approaches to prevent damages of gas pipeline caused by third party constructions (On roads)

Utilizing tools for prevention of damage accidents

- Issuing pamphlet to ask attention to prevention of pipeline damage accidents caused by third party constructions
- Leaflet describing request for prior consultation and prior discussion
- PR materials for prevention of pipe damage accident caused by third party constructions
- Any other types of novelty advertising



Our major approaches to prevent damages of gas pipeline caused by third party constructions (On roads)

➤ Opportunities for diversification of common knowledge

- Diversification of publicity for accident prevention including coordination meetings for adjustment of work schedules of works on roads
- Dissemination of information for accident prevention to site workers on occasions of joint site inspection and site patrol
- Direct mailing to contractors of third party constructors who experienced damage accidents



Our major approaches to prevent damages of gas pipeline caused by third party constructions (Within housing sites)

- **Collection of information related to third party constructions**
 - Requesting various industry groups such as General Contractors Association to ensure prior consultation and prior discussion
 - Requesting contractors of third party constructions for prior consultation and discussion in any means such as direct mailing
 - Requesting contractors of third party constructions who experienced damage accidents to ensure prior consultation and discussion



Our major approaches to prevent damages of gas pipeline caused by third party constructions (Within housing sites)

- Encouraging all people concerned with third party constructions for damage prevention
 - Giving full information focused on the past records of accidents and experienced damages
- Utilizing tools for prevention of damage accidents
 - Issuing pamphlet to ask attention to prevention of pipe damage accidents caused by third party constructions
 - Direct mailing to request for prior consultation and discussion
 - Any other types of novelty advertising



Our major approaches to prevent damages of gas pipeline caused by third party constructions (Within housing sites)

➤ Opportunities for diversification of common knowledge

- Diversification of publicity for accident prevention and utilizing any manners of business operation
- Distribution of PR pamphlet to counters of government agencies

➤ Other Initiatives

- Any other measure including visualization of current status of work sites demonstrating locations of piping progress and status of opening of gas running



Thank you for your kind attention



ほっと、人、あんしん。

京葉ガス

