

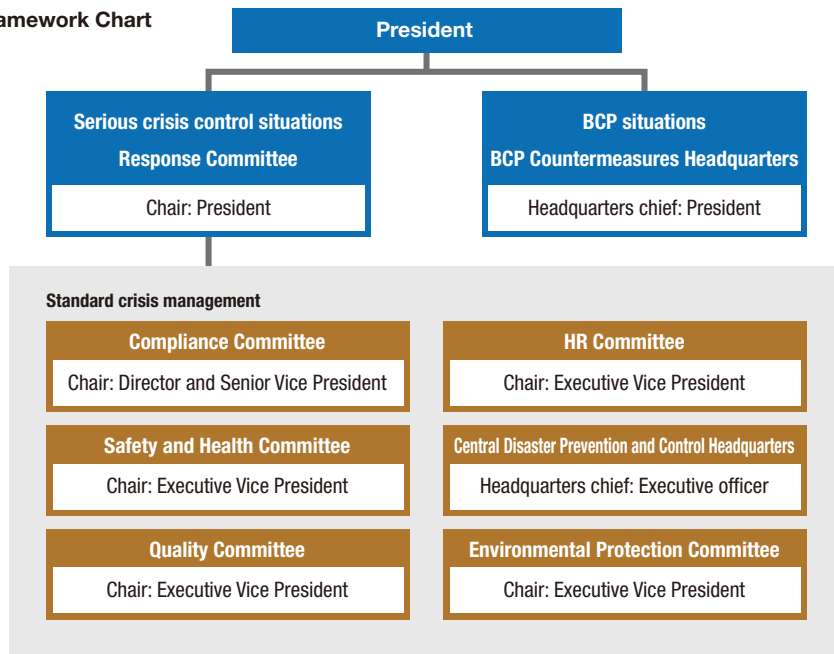
Risk Management

Approach to Risk Management

The NGK Group addresses the issue of serious risk by empowering the following committees to facilitate risk avoidance and prevention, in accordance with the Basic Rules of Crisis Management. Additionally, in the event of some particularly significant risk, the executive officer in charge of the Corporate Planning Office can call a meeting, which would include the president, to develop countermeasures.

In times of increasing socio-economic uncertainty, it is important to have a heightened awareness of risk and to act before risks turn into crises. Therefore, in addition to the six committees, which we maintain in order to oversee matters of day-to-day risk, we also have in place a system by which top management can coordinate a rapid response to growing risks.

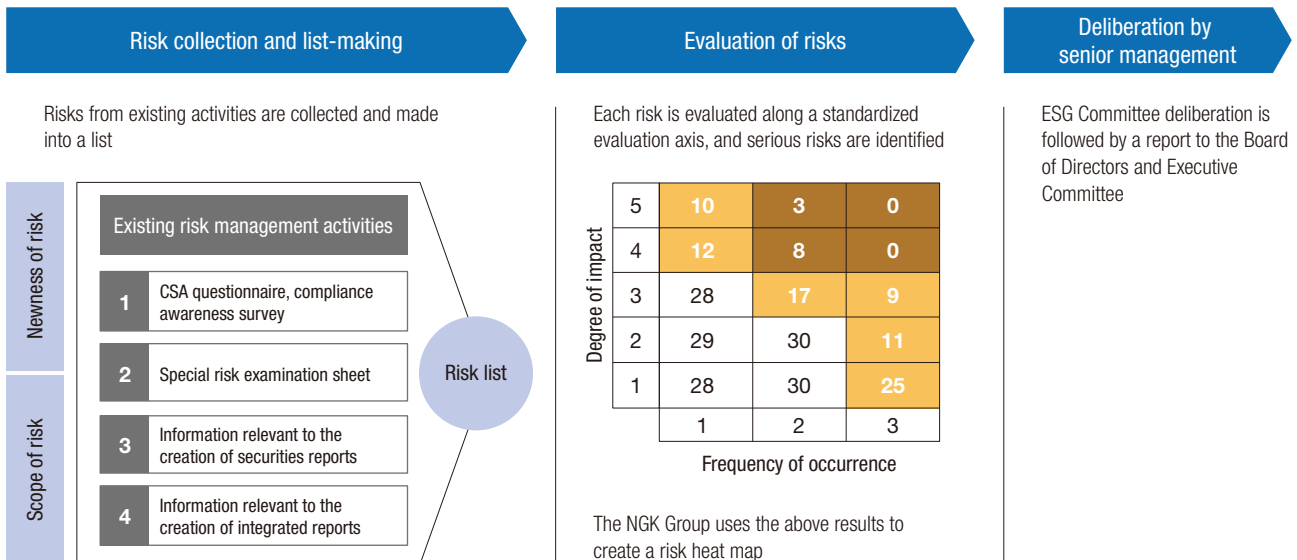
Risk Management Framework Chart



Risk Identification Process

All risks discovered through the standard risk management process, which have the potential to affect the operational or financial situation of the Group are collected and reevaluated in

order to identify any which may be serious risks. The ESG Committee will then deliberate and designate those risks that need to be managed by the Group as a whole.



Risks, Risk Summaries, Risk Responses

- 1 Business operation risks 2 R&D-related risks 3 Legal compliance, human rights and safety, and quality-related risks
4 Information systems-related risks 5 Currency exchange, capital, and procurement-related risks 6 Climate change and disaster-related risks

Risk	Summary	Response
1	<p>All operations</p> <ul style="list-style-type: none"> Demonstrations, terrorism, war, infectious or communicable disease, and other unforeseen matters <p>1 Ceramic Products Business</p> <ul style="list-style-type: none"> Drop in demand for NGK Group products due to decline in demand for internal combustion engine vehicles Drop in market share due to rising competition from Chinese market Inability to recover prior investment due to downturn in business, delayed timing of regulations, or other factors <p>2 Process Technology Business</p> <ul style="list-style-type: none"> Deterioration in performance and financial status due to declining demand for semiconductors Delayed responsiveness to customer needs Emergence of innovative semiconductor manufacturing process Drop in market share due to growth of competition in kilns for lithium-ion battery cathode materials and electronic components <p>3 Electronics Business</p> <ul style="list-style-type: none"> Sudden drop in base station and data server demand Inability to develop new technology or release products compatible with customer technology innovations <p>4 Energy Infrastructure Business</p> <ul style="list-style-type: none"> Change in energy policies overseas Trends among competitor companies and products Delay in timing of market expansion for large-capacity and long-life batteries 	<ul style="list-style-type: none"> Construct globally distributed, alternative systems Compensate for drop in demand by increasing number of new and high-performance products in line with stronger exhaust regulations Strengthen competitiveness via technical responsiveness that anticipates environmental regulations, and via supply stability Respond appropriately to automaker planning and changing business conditions, and then make revisions to capital investment planning Work together with direct customers who manufacture semiconductor manufacturing equipment, and make revisions to equipment capacity and personnel and production systems, etc., where appropriate Carefully monitor semiconductor manufacturing process trends and revise production systems where appropriate to ensure quick response to changes in demand Carefully monitor customer trends and pursue production system innovation where appropriate to ensure quick response to changes in demand Carefully monitor customer trends and pursue timely technological development Carefully monitor energy policy trends in each country and revise production systems where appropriate to ensure quick response to changes in demand Strengthen competitiveness via technical responsiveness and supply stability Carefully monitor customer trends and revise production systems where appropriate to ensure quick response to changes in demand
2	<ul style="list-style-type: none"> Inability to achieve adequate results with the input received due to increasingly complicated technological competition 	<ul style="list-style-type: none"> Continue to receive input not only for increasing performance of existing products but also for finding promising new topics to explore
3	<p>1 Legal compliance-related risks</p> <ul style="list-style-type: none"> Decline in NGK Group's reputation due to actions in opposition to society's expectations with regard to legal and regulatory compliance, respect for human rights, contract compliance, etc. <p>2 Human rights and safety-related risks</p> <ul style="list-style-type: none"> Human rights violations of workers in supply chain Employee occupational hazards, illness, or physical and mental health problems <p>3 Quality-related risks</p> <ul style="list-style-type: none"> Quality-related risks such as loss of trust or profits, or contraction in growth, due to serious market complaint, contractual violation, or other unsatisfactory operations 	<ul style="list-style-type: none"> Utilize employee training and handbook distribution to ensure employees are familiar with relevant laws and regulations and have a more compliance-focused mindset With regard to serious improprieties or legal/regulatory violations, undertake prevention and monitoring overseen by Business Ethics Committee, which comprises outside directors and compliance officers Undertake human rights due diligence via HR Committee In accordance with NGK Safety and Health Policy, identify serious hazard risks and use risk assessment to facilitate strengthening of preventative measures Follow up on employees who work long hours, and conduct job grade-specific mental health education Have Quality Management Department perform monitoring of each Business Group's quality activities, in line with NGK Quality Policy and under direct supervision of senior management Regarding serious issues, convene quality review meetings in order to find a solution quickly
4	<ul style="list-style-type: none"> Negative impact on societal trust or business continuity due to shutdown of data processing, or to theft, destruction, manipulation, loss, etc., of data, following external cyber-attack or unauthorized system access, or after unexpected system failure or security issue 	<ul style="list-style-type: none"> Construct IT security system standardized for entire Group Conduct information security training for employees
5	<ul style="list-style-type: none"> Decreased sales and profits and deterioration of business performance due to strong yen Risk of negative impact on business operations, performance, and financial situation of NGK Group as a result of financing difficulties stemming from serious regional financial crises and other factors Rising production costs due to rising raw materials prices 	<ul style="list-style-type: none"> Keep production close to local demand centers, perform financing in local currency, and optimize purchasing according to currency exchange situation Hedge risks with forward foreign exchange contracts and other financial instruments Reflect risk in sale price to customer Reduce costs through competitive purchasing, increased productivity, and other means
6	<ul style="list-style-type: none"> Deterioration in business performance due to additional costs incurred by future international GHG regulations, environmental taxes, carbon taxes, etc. Operational decline due to global warming-caused sea level rise, increased size and magnitude of typhoons, increased frequency of local torrential rains, etc. Deterioration in business performance due to shutdown of production following major disaster, fire, or other serious incident or accident Decline in operations and negative impact on product manufacturing and sales due to emergence and spread of major infectious disease, such as new strain of influenza or coronavirus 	<ul style="list-style-type: none"> Invest time and resources into developing and popularizing products and services that reduce environmental impact, and into developing and introducing high-efficiency, environmentally friendly production technology Announced endorsement in February 2020 of Task Force on Climate-related Financial Disclosures (TCFD) recommendations. Begin taking concrete action Promote business continuity plan (BCP) for entire Group