Genentech 2007 Corporate Sustainability Report

CEO Message

I am pleased to introduce our third Corporate Sustainability Report, in which we describe the status of our efforts to protect natural resources and our employees' health, safety and wellness, while delivering our mission of addressing significant unmet medical needs.

Our mission is guided by principles of scientific and operational excellence, long-term planning, execution, and people and culture. These principles are well aligned with concepts of sustainability, and our pursuit of them has supported a range of sustainability achievements.

One of these achievements is a significant increase in the efficiency of our manufacturing processes, which has led to a reduction in the amount of natural resources used in the delivery of each patient dose of our biotherapeutic products. As a company with the majority of our operations in California, a region with increasing natural resource constraints, we are particularly conscious of our responsibility to make careful use of resources such as energy and water.

Our employees play an important role in our sustainability efforts, and I am proud of the opportunities they are taking to continually protect and enhance natural resources and occupational health, safety and wellness. Our successful employee-commuting program, gRide, was recognized by a number of third-party organizations as a best-in-class program, and this year, for the first time, we have reported greenhouse gas emissions associated with employee commuting activities. We continue to make strong progress in improving performance on employee health, safety and wellness, with particular success in reducing ergonomics-related incidents, which was achieved in large part through the active engagement of our employees.

During 2007, we became the first biotechnology or pharmaceutical company to obtain thirdparty certification for our greenhouse gas emissions inventory under the California Climate Action Registry. In 2007, we also participated for the first time in the Carbon Disclosure Project, and I am pleased to report that we achieved the highest score among biotechnology participants.

In this report, you will read that 2007 was an important year in the evolution of our sustainability strategy. During the year, we undertook a strategic review of our sustainability commitments, strengthened our Sustainability Governance Structure and participated for the first time in a number of third-party sustainability reporting programs. In addition, we continue to develop our Environmental, Health and Safety Management System as an important vehicle for driving improvements.

In the year ahead, I look forward to seeing further progress in our sustainability and occupational health, safety and wellness programs and to updating you on this progress in our next Report.

Genentech is committed to high standards of integrity in contributing to the best interests of patients, the medical profession, our employees and our communities, and to seeking significant returns to our stockholders based on scientific and operational excellence. We understand that sustainability is a topic of increasing interest to our stakeholders and trust that this Report serves to inform interested parties about our related commitments and accomplishments. I hope you enjoy reading the Report, and I look forward to receiving your feedback.



Arthur D. Levinson, Ph. D. Chairman and CEO

Table of Contents

About Our Report	3
About Genentech	3
Our Mission	3
Financial Information	3
Our Products	3
Our Locations	5
Evolution of Sustainability at Genentech	6
Strategic Review	6
Sustainability Governance	8
Regulatory Conformance	8
Management System	9
Using Natural Resources Responsibly	10
Genentech and Climate Change	10
Rising to the Water Challenge	14
Waste Reduction, Reuse and Recovery	16
Responsible Development	19
Ensuring Employee Safety, Health and Wellness	20
Continuous Safety Program Inprovements	20
Safety and Health Performance Trends	21
Leading Safety Metrics	22
Employee Wellness	23
Sustainability Data and Supporting Notes	26
Notes to Support the Data Table	27
Invitation to Comment	31
Third Party Data Review Statement	32

Cover: Genentech's Building 32 in South San Francisco is an EPA Energy Star complex that has drought-resistant landscaping and a display of a patient to remind Genentech employees of the company's important mission.

This report provides a summary of Genentech's environmental sustainability and employee health, safety and wellness performance for 2007 and commitments for 2008.

- It builds on the information presented in the 2005/2006 Sustainability Report, expanding the scope to include a sustainability strategy and governance section, greenhouse gas emissions from employee commuting, and additional data on waste and recycling.
- In this report, we also describe how our sustainability strategy has evolved during 2007, what our commitments are for 2008 and how we are progressing against our 2010 sustainability goals.
- The statements and data contained in this report have been verified by Bureau Veritas Certification. Their verification opinion can be found on page 32.

About Genentech

We open this report with information about our company, including our core mission, products, locations, and where to find information on our financial performance and corporate governance process.

Our Mission

Our mission is to be the leading biotechnology company, using human genetic information to discover, develop, manufacture and commercialize biotherapeutics that address significant unmet medical needs. We commit ourselves to high standards of integrity in contributing to the best interests of patients, the medical profession, our employees and our communities, and to seeking significant returns to our stockholders, based on the continual pursuit of scientific and operational excellence.

Financial and Corporate Governance Overview

For the latest information on Genentech's financial performance, go to www.gene.com and click on "Investors."

To learn about Genentech's governance principles, go to www.gene.com, click on "Investors" then "Corporate Governance."

Our Products

Genentech's goal is to deliver innovative medicines to patients with serious or life-threatening medical conditions. Since its founding in 1976, the company has focused its drug discovery efforts on therapies that would fill unmet needs. Today, Genentech manufactures and commercializes multiple biotherapeutics for critical medical conditions in the areas of oncology, immunology, and disorders of tissue growth and repair — giving Genentech one of the leading product portfolios in the biotech industry.

About Genentech

This table shows the medicines that Genentech manufactures and describes the diseases for which each is approved. For the latest information about Genentech products, and for full Prescribing Information and Boxed Warnings, go to www.gene.com, click on "Medicines" then "Product Information."

BIOONCOLOGY		
Avastin®	(bevacizumab) Anti-VEGF Antibody	Approved for use in combination with chemotherapy for first- or second-line treatment of patients with metastatic colorectal cancer and in combination with chemotherapy for the first-line treatment of patients with metastatic non-squamous non-small cell lung cancer.
Herceptin [®]	(Trastuzumab) Anti-HER2 Antibody	Approved for the adjuvant treatment of HER2-overexpressing node-positive or node- negative (ER/PR-negative or with one high-risk feature) breast cancer as part of a treatment regimen containing doxorubicin, cyclophosphamide, and either paclitaxel or docetaxel; with docetaxel and carboplatin; and as a single agent following multi- modality anthracycline-based therapy. Also approved in combination with paclitaxel for the first line treatment of HER2-overexpressing metastatic breast cancer and as a single agent for treatment of HER2-overexpressing breast cancer in patients who have received one or more chemotherapy regimens for metastatic disease.
Rituxan®	(rituximab) Anti-CD20 Antibody	Approved for relapsed or refractory, low-grade or follicular, CD20-positive, B-cell non- Hodgkin's lymphoma (NHL) as a single agent; for previously untreated diffuse large B-cell, CD20-positive, NHL in combination with CHOP chemotherapy; for previously untreated follicular, CD20-positive, B-cell NHL in combination with CVP chemotherapy; and for the treatment of non-progressing, including stable disease, low-grade, CD20- positive, B-cell NHL as a single agent, after first-line CVP chemotherapy.
Tarceva®	(erlotinib) Small Molecule HER1/EGFR Inhibitor	Approved for the treatment of patients with locally advanced or metastatic non-small cell lung cancer after failure of at least one prior chemotherapy regimen and in combination with gemcitabine for the treatment of advanced pancreatic cancer in patients who have not received previous chemotherapy.
IMMUNOLOGY		
Raptiva®	(efalizumab) Anti-CD11a Antibody	Approved for chronic moderate-to-severe plaque psoriasis in adults age 18 or older.
Rituxan®	(rituximab) Anti-CD20 Antibody	Approved for use in combination with methotrexate for reducing signs and symptoms and to slow the progression of structural damage in adult patients with moderately- to severely-active rheumatoid arthritis who have had an inadequate response to one or more tumor necrosis factor antagonist therapies.
Xolair®	(Omalizumab) for Subcutaneous Use Anti-IgE Antibody	Approved for adults and adolescents (12 years of age and above) with moderate-to- severe persistent asthma whose symptoms are inadequately controlled with inhaled corticosteroids.
TISSUE GROWTH	AND REPAIR	
Activase®	(Alteplase) Tissue-Plasminogen Activator	Approved for the management of acute myocardial infarction (heart attack), acute ischemic stroke and acute massive pulmonary embolism.
Cathflo® Activase®	(Alteplase) Thrombolytic Agent	Approved for the restoration of function to central venous access devices as assessed by the ability to withdraw blood.
Lucentis®	(ranibizumab injection) Antibody Fragment	Approved for the treatment of neovascular (wet) age-related macular degeneration.
Nutropin [®] and Nutropin AQ [®]	[somatropin (rDNA origin) for injection], [somatropin (rDNA origin) injection] Growth Hormone	Approved for the long-term treatment of growth failure due to a lack of adequate endogenous growth hormone (GH) secretion; for the treatment of growth failure as- sociated with chronic renal insufficiency up to the time of renal transplantation; for the long-term treatment of short stature associated with Turner syndrome; for the long- term treatment of idiopathic short stature; and for the replacement of endogenous GH in patients with adult GH deficiency.
Pulmozyme®	(dornase alfa) Inhalation Solution	Approved for the management of cystic fibrosis in patients (including patients under age 5) to improve pulmonary function.
TNKase®	(Tenecteplase) Single-Bolus Thrombolytic Agent	Approved for use in the reduction of mortality associated with acute myocardial infarction.

Our Locations

Genentech has approximately 11,000 regular, full-time employees company-wide, and has its headquarters in South San Francisco, California, with several other locations dedicated to manufacturing operations, clinical operations and distribution.



South San Francisco, California

Since its founding in 1976, Genentech has made its headquarters in South San Francisco, California. Starting with one rented building and two staff members, the company's South San Francisco site has grown to a full campus with over 40 buildings on the shore of the San Francisco Bay. Today, the site is home to a research center, manufacturing operations, several office buildings and various business functions.



Vacaville, California

Genentech's Vacaville, California, site is located on 100 acres in Solano County, approximately 50 miles northeast of San Francisco. The Vacaville site houses over 800,000 square feet of manufacturing, quality, and administrative services and employs over 800 people.



Oceanside, California

Genentech acquired a production facility in Oceanside, California, in June 2005. The state-of-the-art manufacturing facility is located on 60 acres about 35 miles north of San Diego and employs over 500 people.



Genentech has a variety of other locations¹, including:

- Louisville, Kentucky A distribution facility operational since January, 2006
- Hillsboro, Oregon A new fill / finish and distribution facility under construction in 2008
- Tuas, Singapore A new manufacturing facility under construction in 2008

¹ These facilities are not included in any of the metrics provided in this report due to the lack of historical data. Genentech's policy is to internally track data at new facilities for two years before publishing in this report.

Strategic Review

2007 was an important year in the evolution of Genentech's sustainability strategy. During the second half of the year, we completed a sustainability review, which confirmed the strong alignment between sustainability and Genentech's core values, such as trust, integrity and respect. We also learned that business leaders across Genentech consider sustainability to be important to Genentech's business success. The review involved the collection and analysis of a significant body of data that led to a range of strategic recommendations for further enhancing and refining our sustainability program.

These recommendations fall into the following categories:

- Sustainability definition
- Leadership and governance
- Goal-setting
- Decision-making frameworks
- Staff engagement
- Communication and reporting
- Engagement with external stakeholders
- Socially responsible investment

The review involved internal consultation with many leaders from across Genentech's business functions, consultation with a number of external stakeholders, including the California Climate Action Registry and Sustainability Asset Management (SAM)², benchmarking of sustainability programs in place at peer companies and analysis of Genentech's sustainability performance by third parties, including Socially Responsible Investment (SRI) analysts.

The review considered questions such as:

- How important is sustainability to Genentech's business now and in the future?
- Who are the key stakeholders for Genentech's sustainability strategy?
- Which sustainability issues should be given the most attention?
- What are our current strengths and opportunities for improvement?
- How does our sustainability performance compare to that of our peers?

As a result of the review, the following activities were initiated during 2007:

- Identification of projects to further improve our projected energy and water efficiency, in support of our 2010 sustainability goals
- Formalization of Genentech's sustainability data management processes using our internal document management system
- Evaluation and selection of the most significant sustainability issues for Genentech to further refine our sustainability strategy

We will be making progress against many of the other strategic recommendations during 2008 and look forward to reporting on these activities in our next report.

Beyond Environmental Sustainability

While our current programs under the "sustainability" banner are focused on reducing our environmental impacts, we understand that sustainability is a broader concept that encompasses not only the environmental, but also the social and economic aspects of our business, often referred to as the triple bottom line. We also understand that as a biopharmaceutical company, the social element is important. Genentech has strong and award-winning programs for the management of a variety of business issues, such as access to medicine, innovation in research, clinical trial practices, and employee welfare and benefits.

While this report is focused on the environmental sustainability and employee health, safety and wellness aspects of our business, this year, for the first time, we have provided an index on our web-site, based on the Global Reporting Initiative framework, that directs readers to information about our performance and programs on sustainability-related issues outside of the Environment, Health, and Safety (EHS) arena. To view the index, go to www.gene.com, click on "About Us" then "Sustainability."

² SAM Group publishes and licenses the Dow Jones Sustainability World Indexes (DJSI), a series of global sustainability benchmarks.

Leading Sustainability at Genentech

Recently, three Genentech leaders met to discuss Genentech's sustainability focus areas: Roy Hardiman, who heads the Compliance & Sustainability Committee, Tom Lyon, Vice President of Corporate Business Services, and Roberto Piccioni, a Senior Manager in Corporate Environment, Health & Safety. They discussed the Genentech program with Bill Shireman who is President of Future 500.

Bill: What is sustainability for Genentech?

Roy: The classic definition is "providing for society's needs today without compromising society's ability to meet those needs tomorrow." Fundamentally, it means creating more value than we consume.

Bill: Does that mean sustainability equals profitability?

Roy: Many times, yes. One of the things our company struggles with is the idea that sustainability can be profitable. It feels like we're taking public credit for doing something that is really in our own economic interest.

Bill: Like if something doesn't hurt, it can't be sustainable?

Roy: Right. For example, we drove a dramatic increase in manufacturing plant resource efficiency. It's responsive to objectives of sustainability, but we didn't label it that. What drove this was the desire to produce more from our existing plants, rather than continuing to build more facilities at enormous costs.

Roberto: That speaks to the business value of sustainability.

Tom: That's a key point. We do sustainability – but sustainability is often not what we label it. The core pursuits of the company – innovation, efficiency, meeting unmet medical needs – are fundamentally aligned with concepts of sustainability.

Bill: How does innovation fit into your concept of sustainability?

Tom: By doing science well, we do sustainability well. The challenge with the term sustainability, from an operations perspective, is that it's so broad – it can include almost anything worth doing. That's why we relate it to science and innovation. In developing pharmaceuticals to meet unmet medical needs, we are driving innovations that serve both social and economic ends. However, at Genentech when the word sustainability is used, it is often targeted toward our environmental footprint of natural resources, energy, emissions, waste, etc.



Left to right: Roy Hardiman, Roberto Piccioni, Bill Shireman and Tom Lyon

Bill: But if "sustainability" is already what you do, where is the value-add, either for Genentech or for society, in having a formal sustainability program?

Tom: The point is that sustainability is one of several drivers for business decisions, to use it to help make choices about how to spend our dollars, how to direct our innovations. If we profited from sustainability in the past – without direct intent – can we profit even more, and deliver even more benefit to our stakeholders, if we approach it with direct intention? Can we target the projects that will make the most difference?

Roberto: For example, once we set our first sustainability targets for energy and water, and let our people loose, we exceeded our goals faster, and by a wider margin, than anyone anticipated. For example, in Vacaville, our managers used software to model our energy use, and identified a whole set of efficiency opportunities. All told, our corporate goal was to improve energy efficiency 10 percent by 2010. We improved it 29 percent by 2007. That suggests an enthusiasm as well as opportunity that we want to further tap.

Bill: Does something have to be profitable to be selected as a sustainability initiative at Genentech?

Roy: No, but it has to be worthwhile. For example, part of what helps drive sustainability at Genentech is that we're highly analytical – we spend every dollar with care.

Bill: Where has the pressure come from to create a sustainability program at Genentech?

Tom: Sustainability is a very current issue. The media, the communities where we live and do business, our industry all are talking about sustainability. The environment is ripe for sustainability here. Innovative ideas come from scientists, engineers and many other employees. And the commitment from senior executives means that it has support.

Roberto: Our employees are our most important sustainability stakeholders. And our employees bring knowledge and enthusiasm to work everyday. Most of our managers consider sustainability important or extremely important to our business success. And our scientists see sustainability as closely aligned with innovation.

Bill: Your sustainability report talks mostly about environmental initiatives. But a lot of what we have talked about is science, innovation, profitability and well-being. Is sustainability just environmental for Genentech?

Tom: It's something more, but we are not sure how to bound it. For example, our whole company's mission is to meet unmet medical needs. The patient is at the heart of our business. Is all that a part of our sustainability initiative? Or is it just our business?

Roberto: We've made a decision to begin our formal sustainability program with a focus on the environment. But the more we talk it through, the more people agree that it is economic, social and environmental. Sustainability is when those three overlap.

Roy: If you look at our mission – to find unmet medical needs and meet them – that's sustainability for the individual. Here we raise that to the level of society. Sustainability is about innovation, to find unmet needs for the human condition that match our skills and meet them. That's a challenge that inspires us each day at Genentech.

Sustainability Governance

During 2007, we made a number of changes to further strengthen our sustainability governance structure.

A new senior level EHS Compliance and Sustainability Committee (C&SC) was formed with membership by senior leaders from across Genentech's business functions. Our previous Sustainability Steering Committee was disbanded and its activities have been incorporated into the C&SC. The C&SC meets regularly throughout the year and oversees EHS Compliance and Sustainability Program activities and effectiveness. The C&SC also provides strategic guidance, review and approval of Genentech EHS compliance and sustainability strategy, goals, work plans and reports. The C&SC reports periodically on its activities to Genentech's Chief Compliance Officer, who is also a member of Genentech's Executive Committee.

Reporting in to the C&SC are several issue-based working groups, including the Environmental Sustainability Team (EST). The EST comprises managers from various Genentech business functions and is chaired by the Director of Design Engineering. The team's mission is to help promote and maintain a culture of sustainability within Genentech and specifically to help ensure that Genentech manages natural resources in an efficient and sustainable manner. The team has a range of responsibilities, including proposing revisions to the company's sustainability goals for C&SC approval, identifying opportunities to integrate sustainability into Genentech's business processes, establishing appropriate metrics and monitoring performance. The team periodically reports to senior management via the C&SC on the effectiveness of Genentech's sustainability program.

Our Green Genes employee group provides a means for any Genentech employee to become actively involved in our sustainability efforts. Green Genes was founded in 2003 and now boasts nearly 500 members. During 2007, we initiated a number of steps to further strengthen the ability of Green Genes to actively participate in sustainability decision-making and added the Green Genes leader as a member of the EST. At the end of 2007, we designed a web based system to allow all Genentech employees to submit their sustainability ideas for evaluation within the sustainability governance structure.

Regulatory Conformance

A variety of government agencies oversee the safety and environmental performance of Genentech's facilities. These agencies range from local fire departments to local, regional and national agencies.

Generally, regulatory agencies monitor conditions and developments at Genentech's facilities by requiring permits, notifications and periodic reports on key issues, as well as by inspecting Genentech's facilities.

Below is a list of the key regulatory agencies associated with environmental, health and safety performance that conducted inspections or evaluated operations at Genentech facilities in 2007:

Genentech Facility	Inspecting Agencies
South San Francisco, California	 San Francisco Bay Regional Water Quality Control Board U.S. Environmental Protection Agency South San Francisco Fire Department San Mateo County Environmental Health Department California Occupational Safety & Health Administration Bay Area Air Quality Management District
Vacaville, California	 Vacaville Public Works Wastewater Yolo Solano Air Quality Management District Vacaville Fire Department Solano County Environmental Health Services
Oceanside, California	 County of San Diego Air Pollution Control District San Diego Regional Water Quality Control Board San Diego County Environmental Health Department City of Oceanside Wastewater Division City of Oceanside Fire Department

Genentech has established strong working relationships with these agencies. When compliance issues are identified at Genentech, we diligently work to resolve the issue. In addition, we view these events as an opportunity to learn and improve our operations and increase EHS awareness.

Management Systems

In our last report, we described a commitment to formalize our continual improvement processes through adoption of an EHS risk management framework, which encompasses the following activities:

- Leadership
- Planning and Administration
- Risk Evaluation
- Human Resources
- Compliance Assessment
- Project Management
- Training and Competence
- Communications and Promotions
- Risk Control
- Asset Management
- Contractor Management and Purchasing
- Emergency Preparedness
- Learning from Events
- Risk Monitoring
- Results and Review

During 2007, the C&SC identified key focus areas for the development of Corporate EHS Program Specifications through risk assessment and audit of key activities. We plan to complete the most significant of these Program Specifications during 2008. One of the key outcomes of this work will be the effective alignment of EHS practices across all Genentech facilities.

Our manufacturing and distribution organizations have the responsibility of managing a substantial portion of the company's EHS risks and, as we described in our last report, are using isrs7 as a rating tool to track their progress towards developing a world-class EHS program.

The isrs7 tool is an internationally recognized tool for measuring, improving and demonstrating EHS management system performance. It was developed by Det Norske Veritas (DNV) and based on the long established International Safety Rating System, originally developed in the 1970s.

DNV audited several departments during 2007 to evaluate their progress towards the goal of achieving world-class EHS management by 2010. World-class performance is defined in isrs7 as EHS risk management that is fully integrated into the business. The audits identified significant progress in implementing the management system framework, and as a result the goal of achieving world-class management has been accelerated to 2009. In order to achieve this goal, integration of EHS activities with other Genentech business processes is a key priority during 2008.

Genentech and Climate Change

At Genentech, we recognize that climate change is an issue of global concern, and we are committed to participating in the effort to reduce emissions of greenhouse gases into the atmosphere. In this section, we discuss our commitments to accurate and transparent greenhouse gas reporting, our strategy for reducing our climate change impacts, our progress towards our 2010 greenhouse gas efficiency goal and our planned activities for 2008.

Our Greenhouse Gas Reporting Commitments

In 2006, Genentech voluntarily joined the California Climate Action Registry (the Registry), and was among the first biopharmaceutical companies to do so. During 2007, we calculated our 2005 and 2006 greenhouse gas emissions in accordance with the Registry's General Reporting Protocol and

submitted this to the Registry for third-party verification. The inventory was successfully verified and we are now a member of the Registry's Climate Leaders group. At the time of publication of this Sustainability Report, the third-party review of our 2007 emissions calculations will have been completed as



part of the Registry's verification process. We place importance on ensuring the high quality of the data on which we base our management decisions, and we believe that the Registry's rigorous reporting and verification protocols help us to meet our data quality objectives.

As Genentech is located in the State of California, climate change presents particular issues for our company. California has been proactive in passing legislation to limit emissions of greenhouse gases from industry and other sectors. The California Global Warming Solutions Act of 2006 (Assembly Bill 32) commits the State of California to reduce greenhouse gas emissions to 1990 levels by 2020. When the bill is fully implemented, this commitment will translate into new requirements for California companies. These include mandatory greenhouse gas reporting regulations, which will require certain California facilities to report their greenhouse gas emissions annually to the California Air Resources Board (CARB) starting in 2009 (for reporting year 2008). Our South San Francisco facility may be covered by the new reporting requirements. Since Genentech is an existing member of the Registry and is already annually reporting emissions, the

company is well prepared to meet CARB's new reporting requirements, as these will largely be based on the Registry's existing standards and protocols.

Our reporting to the Registry encompasses emissions from our facilities, including electricity, natural gas and fuel use in our emergency power generators and Genentech owned and controlled vehicles. As the graph below shows, electricity and natural gas use at our facilities are our most significant emission sources. Consequently, our current greenhouse gas reduction strategy is focused on improving the energy efficiency of our operations and evaluating onsite renewable energy options. Other emissions, such as those arising from business travel, are not required to be reported to the Registry, but we do provide data on these in the Sustainability Data & Supporting Notes section of this report. In addition, we have recently estimated the emissions arising from our South San Francisco employee commuting activities during 2006 and 2007. This exercise was led by the Genentech gRide team, which runs our award winning employee commute program. Further details can be found in the "Employee Commuting in South San Francisco" story located in this section.





Genentech and the Carbon Disclosure Project

Genentech participated in the Carbon Disclosure Project (CDP) for the first time in 2007 and will be participating again in 2008. CDP is a global, non-governmental organization that works with investors and corporations to help them share information on climate change in a standard, secure and accessible way. The CDP represents investors with combined holdings of \$57 trillion in assets under management, who are interested in understanding the way in which companies view and manage climate change risks and opportunities.

We were pleased to receive the highest Carbon Disclosure Leadership Index (CDLI) rating among the biotechnology CDP participants for our 2007 climate change submission to the CDP. The CDLI rating takes into account information provided by companies on a range of climate change issues, such as business risks and opportunities, strategies, targets and action plans, and greenhouse gas emissions accounting and reporting. We received a CDLI rating of 75 out of a maximum possible 100 for our 2007 response. This compares favorably with the pharmaceutical sector group, which had an average CDLI rating of 58.

2010 Greenhouse Gas Goal Progress

During 2005, our Sustainability Steering Committee committed to the following goal:

Improve energy efficiency* by 10 percent by the year 2010, compared to 2004.

* Energy efficiency is measured as total weight of energy-related carbon dioxide³ emissions divided by units of marketed product produced.

During 2007, we built on the progress made towards the goal in 2005 and 2006, as shown in the following graphs. Our greenhouse gas efficiency in 2007 improved by 28 percent when compared with the 2004 baseline and 9 percent when compared with 2006.



Carbon Dioxide Emissions From Energy Use

Genentech's Goal for Carbon Dioxide Emissions per Unit of Marketed Product 2004 to 2010



We have updated our 2005 and 2006 greenhouse gas figures to reflect the commencement of operations at our new Oceanside facility in mid-2005, and these updated figures are reflected in the graphs above. For the first 12 months of operation, the Oceanside facility was preparing to commence manufacturing and did not start actual production until mid-2006. In November 2006, Genentech announced that it entered into an agreement with Lonza by which Lonza would purchase our manufacturing facility in Porriño, Spain. Consequently our energy consumption data for 2007 do not include the Porriño facility.

 $^{\scriptscriptstyle 3}$ Carbon dioxide represents >99.9 percent of our energy related greenhouse gas emissions.

We are pursuing energy efficiency options in each of the following areas:

- Increasing manufacturing process efficiency
- Integrating energy efficiency into new building design standards
- Incorporating energy efficiency into existing building upgrades and renovations
- Achieving energy efficiency in equipment (e.g., motors, HVAC and lighting)
- Educating and engaging employees towards changing behaviors

Continued successes in improving the efficiency of our manufacturing processes have contributed significantly to our greenhouse gas efficiency gains, with production rate increases outpacing the growth in greenhouse gas emissions for a third consecutive year. We completed or commenced a range of projects and initiatives during 2007 that also contributed to these gains, examples of which are summarized below.

- Our Vacaville facility implemented a building management software program that models energy use across the facility-related systems, including cooling towers, chillers and HVAC, in order to gain a system-wide view of its energy consumption and better target energy saving opportunities.
- In the last quarter of 2007, our Oceanside Maintenance and Engineering Group changed the operating sequence on the facility's chilled water plant to operate only one chiller during periods of low load. Prior to this change, two chillers were running, resulting in inefficient electricity consumption. This led to an 8.2 percent annual reduction in energy use associated with the chillers, equivalent to an annual reduction in carbon dioxide emissions of 220 metric tons.
- Genentech is working in partnership with a range of stakeholders to realize energy efficiencies. Our South San Francisco and Oceanside facilities have both participated in energy demand management programs run by their energy suppliers (Pacific Gas and Electric for South San Francisco and San Diego Gas and Electric for Oceanside) during 2007, and each facility has been recognized by its supplier for its participation and associated energy conservation efforts.

Going Forward

We have expanded our internal energy management team with expertise in energy efficiency and conservation, and renewable energy opportunities. Our energy management team utilizes a number of tools for forecasting expected energy and water consumption for our new complexes and developments, and for anticipating performance towards our company sustainability goals.

Overall, we have numerous projects underway or under evaluation that will either reduce or conserve natural resources or take advantage of renewable energy opportunities.

We look forward to reporting on the progress of these and other projects in our next Sustainability Report.

Employee Commuting in South San Francisco

Employee commuting programs have begun to gain the attention of business leaders and others concerned with environmental sustainability and greenhouse gas emissions. Given that employee commute behavior can constitute a significant proportion of a company's total carbon dioxide emissions, it is incumbent on responsible businesses to address transportation as an important part of the company's overall sustainability program.

"The employee commuting program helps Genentech make a positive impact in a number of ways," says Dan McCoy, Genentech's Associate Director of Corporate Transportation. "By getting more cars off the road, we help improve air quality and reduce regional gridlock. At an individual level, employees can choose to relax or be productive during their commute – something not possible if you're driving alone. And finally, we can influence other businesses in the area by demonstrating leadership and sharing best practices."

The gRide program, as it is known internally, offers our employees a range of flexible services and cash incentives to steer them toward more environmentally friendly commute modes such as carpooling, public transit and bicycling. Some of gRide's more popular programs include our GenenBus corporate shuttle program, shuttles to and from nearby transit hubs, generous cash incentives for riders and carpool drivers, and shower facilities with towel service for those who prefer to bike to work.

Since the gRide program's inception in November 2006, the number of employees registered in the program has grown from 1,300 to over 3,000 today. An important element of the overall program is our gRide Rewards cash incentive, which encourages South San Francisco employees to travel to work without their cars by rewarding them \$4 per day for each day that they use an alternative commute mode. Additionally, GenenBuses provide a comfortable and reliable motor-coach alternative for employees living in areas that are underserved by public transit. Each GenenBus is a full-sized, 56passenger bus equipped with a wireless internet connection that enables employees to use their computer on their way to and from work. The gRide program has been cited by employees as a factor in their decision to take a job at Genentech, remain at Genentech and even where to buy a house.

We have estimated the 2006 and 2007 carbon dioxide emissions associated with our South San Francisco employees' commuting activities. In 2007, our employee commuting emissions represented 20 percent of the total carbon dioxide emissions arising from our South San Francisco activities. Approximately 31,000 metric tons of carbon dioxide were generated from employee commuting during 2007, a 6.4 percent decrease when compared with 2006 emissions (33,100 metric tons). The carbon dioxide emissions per employee reduced over the same period from 3.9 metric tons per employee to 3.6 (an 8.6 percent decrease). This is a positive sign that the relative contribution of single car use to our total employee commuting emissions is declining.

Over the past two years, Genentech's innovative employee commuting program has matured into one of the best and most comprehensive programs of its kind. The gRide program has been cited as a best-in-class program by organizations such as the Silicon Valley Leadership Group, ACTERA and the International Associating of Business Communicators (IABC).



Rising to the Water Challenge

Our Commitment

As a company with the majority of its operations in California, a state that is experiencing increasing water resource challenges, Genentech is conscious of its responsibility to make efficient use of water in its manufacturing, laboratory and other operations. In 2004, we publicly committed to the following goal:

Improve water efficiency* by 10 percent by the year 2010, compared to 2004.

* Water efficiency is measured as total water use divided by units of marketed product produced.

2010 Water Efficiency Goal Progress

We are pleased to report that during 2007 we achieved considerable water efficiency gains, with the increase in overall water use of 6 percent as compared to 2006 being significantly outpaced by an increase in marketed product output of 33 percent over the same period. This resulted in a 21 percent decrease in water use per unit of marketed product in 2007 compared with 2006 and a 31 percent decrease compared with the 2004 baseline.

Water use at our South San Francisco facility, the Genentech location that uses the most water, decreased between 2006 and 2007, while production levels at this facility were level over this period.





Genentech's Goal for Water Use per Unit of Marketed Product 2004 to 2010

We have updated our 2005 and 2006 water use figures to reflect the commencement of operations at our new Oceanside facility in mid-2005. For the first 12 months of operation, the Oceanside facility was preparing to commence manufacturing and did not start actual production until mid-2006. In November 2006, Genentech announced that it entered into an agreement with Lonza by which Lonza would purchase our manufacturing facility in Porriño, Spain. Consequently our water consumption data for 2007 do not include the Porriño facility.

We use the greatest amount of water in our manufacturing operations, primarily in the production of cell growth media for our products, and in cleaning activities. During 2007, our South San Francisco manufacturing buildings were responsible for approximately 60 percent of the total water use at this facility. Over the last two years, we have focused heavily on increasing the overall efficiency of our manufacturing processes. For example, we achieved 55 percent greater efficiency in the production of our Rituxan therapy. This means that we are now able to manufacture 55 percent more product per batch, with multiple additional benefits, including less water used per unit of product output. Two key areas of activity that have driven these improvements are optimization of our cell culture processes and refinement of our downstream purification processes.

Our Vacaville facility commissioned a new production operation during 2007, which led to an increase of water use at that facility. The increase was due in part to unanticipated issues associated with a water treatment system that was installed to support this new operation. The team at Vacaville has identified the source of the issues and will be carrying out work during 2008 to address them, with the goal of reducing water use.

Going Forward

During 2008 we will be investigating and, where viable, developing opportunities to specifically target water reductions in our manufacturing processes.

We will also pursue opportunities to reduce water consumed in other areas, such as landscaping and office buildings, through measures ranging from the simple to the complex. We intend to expand our use of non-potable water for irrigation, install more dual flush toilets and investigate the use of automatic moisture sensors for our irrigation systems. We intend to install a condensate recovery system at our new Singapore facility.

Reducing Steam Losses

During 2007, Genentech's South San Francisco Production Facilities Group identified leakage of steam through faulty steam traps. The environmental benefits of reducing steam loss and of maximizing condensate recovery are multiple, and include reduced natural gas needed for steam generation, reduced water use and an associated reduction in the amount of chemicals and salt needed to treat water. Yet, identifying traps in need of repair is problematic due to limited physical access and the large number of traps in operation.

Our South San Francisco facility is currently using hand-held ultrasonic meters to test for faulty traps. The system generates automated reports that provide useful management data such as total failure rate, steam loss in dollars per year per trap and total steam loss. A priority listing of the most energy wasting traps and details relating to the cause of failure is provided in order to assist our maintenance efforts. To date, the new system has been implemented in three of our South San Francisco manufacturing buildings, and we have plans to roll out the system in other buildings during 2008. By August 2008, we anticipate having a year's worth of data, which will allow us to calculate the overall savings achieved by implementing the new system.

Green Genes and the Eco Ho-Ho

For 25 years, Genentech employees have gathered on Friday evenings to eat, drink, socialize and exchange ideas at weekly events known as Ho-Hos. For the past few years, Green Genes, our environmentally-focused employee club, has organized an annual Eco Ho-Ho at South San Francisco.

In 2007, the theme was Environmental Sustainability. While enjoying organic food and wine, 1,500 employees and guests circulated among tables with demonstrations and information on ways to save energy and water and minimize waste, both at home and at work. Data from last year's sustainability report was highlighted to raise employee awareness of our sustainability goals and performance.

Each of the Green Genes sub-teams (Energy, Water, Recycling and Transportation) hosted informative tables and educational activities for employees and their families. Local companies showed composting techniques, dual-flush toilets, plug-in hybrid cars and drought-resistant landscaping. Employees had the opportunity to calculate their carbon footprint and to participate in a survey about Genentech's sustainability efforts. Prizes were awarded for winners of eco-quizzes.



Waste Reduction, Reuse and Recovery

It is important to ensure that we do not use resources inefficiently, and therefore we are pursuing a preferred hierarchy of waste reduction at source, followed by reuse, recovery and finally disposal.

During 2007, all of our facilities switched to a new type of plastic pallet for our product shipments. As traditional wood pallets cannot be reused many times, they end up in landfills or are "down-cycled" into paper products, while our plastic pallets are used up to 100 times before being ground up and remanufactured into new pallets. The Vacaville facility is also receiving more materials in bulk, which reduces the amount of incoming containers that have to be sent offsite for recycling or disposal.

Over the last few years, we have pursued a range of initiatives designed to reduce the amount of waste we send for landfill disposal or incineration through increased waste recovery, including recycling and composting.

Last year, for example, we reported on a major initiative led by our Employee Services group to replace Styrofoam and other plastic disposable tableware in our company cafeterias with items made from renewable and 100 percent biodegradable and compostable materials, such as sugarcane, potato starch and soy oil. After an initial successful pilot, this program was rolled out across all Genentech food service operations during 2007.

Examples of Genentech waste streams diverted from landfill disposal include:

- Electronic waste
- Tyvek suits used in manufacturing and laboratories
- Kitchen food waste
- Bottles and cans
- Laboratory plastics
- Cardboard and paper
- Packaging foam
- Pallets
- Green "yard" waste
- Scrap metal

As a result of these efforts, our company wide recovery rates for non-hazardous waste have increased from 32 percent in 2005, to 47 percent in 2006 and 58 percent in 2007.

Employees Volunteer for the Environment

Genentech fosters a strong sense of community inside and outside the company by offering a range of activities to bring people together and to connect with the larger communities in which we live and work.

In September 2007, the Green Genes group collaborated with the Farallones Marine Sanctuary to clean up Miramar beach in Half Moon Bay. This event, inspired by a successful beach cleanup the previous May, was an enjoyable way to assist the local park service and to improve a popular public locale.

Also in September, during the scheduled maintenance shutdown at our South San Francisco campus, production employees had the chance to volunteer for several community service and environmental groups. Many took advantage of the opportunity, as three busloads of employees traveled to Muir Woods to participate in trail and creek restoration projects.

Two months later, more than 200 employees from our Oceanside campus participated in a Volunteer Day. Over the course of the day, volunteers undertook eight charitable projects throughout San Diego North County, including a beach cleanup, wetlands cleanup and a non-native plant removal event.



Green Genes team members at Miramar Beach, Half Moon Bay

Efforts to Reduce Waste Pay Off

In last year's report, we discussed an aqueous by-product of our manufacturing process that represents over 90 percent of our hazardous waste generation. The by-product contains tetramethylammonium chloride (TMAC), which is used in a buffer for our product purification process. Under a complex regulatory framework, TMAC, although not a U.S. hazardous waste, is deemed hazardous under California law.

In 2007, two scientists in the Early Stage Purification Process Development group in South San Francisco implemented an alternative buffer constituent that will allow Genentech to replace most or all of its TMAC usage in new products. The technology developed by Amy Lim and Eileen Duenas eliminated TMAC from the manufacturing processes of 90 percent of the clinical campaigns, which amounted to an approximate reduction of 12,500 liters of TMAC waste generation at the South San Francisco site.

As these new products continue to move through the pipeline, TMAC purification processes will be replaced, and TMAC waste generation will decrease dramatically. It is estimated that bulk TMAC waste generation will continue to decline, and potentially be eliminated, at the South San Francisco site over the next five years.

Amy's and Eileen's efforts, which included weekend work and continued diligence, are a shining example of what makes Genentech special.

Amy Lim and Eileen Duenas of the Early Stage Purification Process Development group



Reuse then Recycle

Recycling is not our primary strategy for waste reduction. Efficiency, including minimizing the purchase of new equipment, is the first step. Our Corporate Facilities Services group in South San Francisco runs a company-wide storage and recycling program for electrical and electronic equipment, with the aim of maximizing reuse.

Any Genentech employee with equipment that they no longer need can complete an online form and the equipment will be picked up for reuse or recycling. If an item has reuse potential, it is cataloged in an online database and is made available for other Genentech employees as an alternative to buying new equipment. If no one at Genentech needs the equipment within a few months, it is sent to our e-waste recycling partner who refurbishes and resells it. The proceeds from these sales offset the costs of e-waste recycling and the remaining funds are available for donation to non-profit organizations. In 2007, our e-waste partner processed 172 metric tons of equipment from Genentech. Of this, 54 metric tons (31 percent) were sold for reuse, and the remaining 118 metric tons (69 percent) were recycled.

We have a number of other programs to maximize reuse. For example, small laboratory equipment is donated through Bio-Link, a program set up by Genentech and the City College of San Francisco Biotechnology Program, to provide laboratory equipment to local high schools and colleges. In addition, excess consumable laboratory supplies are donated to the Bay Area Biotechnology Education Consortium to support their laboratory-based biotechnology curricula in local schools.

Alfonso Bocanegra of the Corporate Facilities Service group

2007 Equipment Reused* and Recycled through our E-Waste Partner (metric tons)



*Does not include equipment used internally at Genentech



Responsible Development



Our South San Francisco site is located on the shores of the San Francisco Bay, in an area previously occupied by shipyards and paint and chemical manufacturers. During our 25 years on this site, Genentech has slowly restored the natural beauty of the area as we have grown and constructed new facilities. A few of the properties required environmental remediation before we could develop them. Our campus includes part of the Bay Trail, which, when complete, will encircle almost the entire San Francisco Bay shoreline. We continue to add onto the Bay Trail as we grow, providing public access to the shoreline – including parking and picnic tables – and a beautiful view of the bay. In 2007, we completed another half mile of the Bay Trail.

For all Genentech sites, we have developed a comprehensive approach to design that relates site planning, building design and landscape design to the natural environment, respecting the integrity and biodiversity of natural systems throughout our campuses. We landscape with native and drought-tolerant plants, and have installed bio-swales to control rainwater runoff. Growth is concentrated on sites served by existing infrastructure, taking into account opportunities to support public and alternative transportation modes.

We strive to create sustainable campus environments that enhance health, comfort and performance, while minimizing resource consumption. In 2007, our Corporate Engineering group developed a Sustainability Design Checklist, based on LEED⁴ NC (New Construction), to guide the identification of sustainable design areas for evaluation and implementation. Genentech is committed to the incorporation of sustainable design characteristics that demonstrate substantial energy, water and material conservation, and that provide reasonable, positive return on investment benefits. We employ architectural design methods aimed at controlling solar gain, including the use of solar shading devices, white roofing materials and building orientation. We utilize high recycle-content building materials and integrate energyefficient and water-conserving systems throughout our campuses, to help achieve our 2010 corporate water and greenhouse gas reduction goals. Further information regarding these efforts can be found in the Climate Change and Water sections of this report.

Update on South Campus Green Building Design

In last year's report, we discussed our efforts to integrate green building design standards to our new South Campus development. Following completion of Phase I of the development, additional energy-efficiency opportunities have been identified and will be realized in 2008 through design and construction of the three Research and Development buildings that form Phase II of the South Campus development. The new buildings will have variable primary flow chilled water systems that will reduce power needed to drive pumps. For the first time in a Genentech lab building, we will install economizer fans in the office areas to re-circulate air and reduce cooling load in the summer and use outside air to cool the buildings during the spring and winter, with a resulting energy saving. Our Engineering Design team looks for opportunities to reduce cooling load wherever possible, due to the multiple benefits associated with reducing the requirements for and size of equipment. The Phase II buildings will also incorporate fan wall air handling systems, which eliminate the need for sound traps and are more efficient than traditional systems. Genentech will be applying for the U.S. Energy Star recognition for two of the South Campus Phase I buildings during early 2008. If successful, this will build on the Energy Star awards previously received for two of our existing buildings at the South San Francisco campus.

⁴ The Leadership in Energy and Environmental Design Green Building Rating System[™] is the nationally accepted benchmark for the design, construction and operation of high performance green buildings developed by the U.S. Green Building Council (USGBC). The Council developed the rating system to help transform the built environment toward sustainability by providing the building industry a consistent, credible standard for what constitutes a green building.

Continuous Safety Program Improvements

Our employees are our most important resource, and we consider their safety and health one of our fundamental responsibilities.

The company continues to improve our safety performance by developing extensive programs to promote a safe and healthy workplace. These efforts are designed to minimize risk to employees and are tailored to our specific work environments, such as manufacturing operations, laboratory environments and office work areas. We continually work to raise awareness about safety with our personnel and adopt enhanced techniques to improve safe work practices.

We take risk management seriously so as to provide employees with as safe a workplace as possible. For example:

- Cumulative trauma disorders, or ergonomics issues as they are commonly known, represent a challenge area for us in office, laboratory and manufacturing environments. See the associated discussion regarding our ergonomics program on page 24.
- Some of our manufacturing and laboratory areas require physical activity such as moving and arranging tanks and large equipment. Common incident types include injuries associated with pushing and pulling equipment or slips, trips or falls. We are focused on minimizing these types of incidents and associated injuries.



Jennifer Wright of the Corporate Environment, Health & Safety group demonstrating appropriate pipetting techniques.

Through the years, Genentech continues to introduce new processes and programs that enhance our safety performance, and our improved safety results validate the effectiveness of our efforts. Some of our recent safety focus areas include:

- Fostering and promoting safety leadership within our operations by employee-led Safety Improvement Teams
- Conducting environment, safety and health risk assessments within our operations to identify, characterize and improve the risk profile of hazards associated with different work activities
- Inspecting work areas for potential hazards and improving our ability to safety manage those hazards
- Integrating safety considerations into the design of new facilities and processing operations
- Developing corporate standards on safety and health, and then coaching, monitoring and auditing our operations in relation to these standards

"We are proud of our efforts to integrate all of our business processes, including safety, into a combined management approach for Process Research & Development activities. In fact, we were recently recognized as achieving Class-A status under the stringent Oliver Wight Checklist for Business Excellence. The integration and execution of safe and effective practices is a focus area for our organization. I am pleased to report that the Class-A auditors observed and commented on behaviors among our personnel that are essential to the support and maintenance of a world class safety culture and the pursuit of environmental sustainability objectives."

> – Ann Lee, Vice President of Process Research & Development

Safety and Health Performance Trends

In 2007, Genentech safety performance improved on our key safety metrics, the Injury/Illness Incident Rate (IIR) and the Days Away/Restricted Time Rate (DART), which are both defined below the following graph.

Our Four-Year Safety Performance Improvement

As illustrated in the following graph, both Genentech's IIR and DART have been declining over the last four years. This means that adverse safety incidents, both moderate and severe, are happening less and less frequently.



The IIR is the rate of injury or illness cases that require medical attention beyond first aid. Commonly referred to as the "Recordable Rate," this is the standard metric that has been used by the U.S. Occupational Safety and Health Administration (OSHA) for many years and can easily be compared across similar companies. The IIR is useful for assessing the frequency of work-related injuries and illness, identifying high-risk activities and taking practical preventive actions to prevent injuries from occurring.

The DART is the rate of injury or illness cases that result in employees missing one or more days of work (lost time), or working at less than full potential (restricted time). The DART is useful in assessing the severity of those injuries and illnesses so that risk mitigation measures can be effectively prioritized. Both IIR and DART are metrics of the rate of incidents per a 100-person population. For instance, an IIR of five would indicate that five out of 100 employees experienced an injury or illness requiring medical attention beyond first aid over the time period measured.

It is useful to compare Genentech's safety statistics with other companies that have similar risk profiles from the same industrial sector. Genentech generally compares IIR against two sources:

- The national average for the biological pharmaceutical products manufacturing industry (NAICS Code 325414), compiled by the U.S. Bureau of Labor Statistics (BLS)
- The average of a select pool of industry peers ("Peers," in the graph below) with whom Genentech coordinates on safety management practices

The graph below shows that Genentech's IIR is approximately half the rate of the national average for the biological pharmaceutical products manufacturing industry and that our IIR's performance is in line with our benchmark group of industry safety performance leaders.

Benchmarking Genentech Injury / Illness Incident Rate



* 2007 data not available

Leading Safety Metrics

Safety and health performance is traditionally measured by "trailing metrics" that measure injuries and illnesses after they occur. Genentech uses these standard metrics and is also increasingly focused on tracking safety and health performance through "leading metrics" that are instrumental in preventing incidents or illnesses from occurring. During 2007, new monthly safety performance reports were developed and distributed to management personnel in order to provide a more timely indication of the daily performance of their safety efforts. These reports, circulated throughout the entire company, provide personnel with several metrics, which represent the daily involvement of line management and staff in monitoring and improving safety conditions:

- The **Recordable Events Ratio** measures the number of recordable injuries that have occurred in relation to the number of first aid events. Safety theory indicates that many first aid events occur before a more serious recordable injury. By developing goals around this ratio, the company is able to incentivize prompt reporting of less serious incidents so that these incidents can be evaluated, conditions can be improved and more serious events can be prevented.
- The **Investigation Timeliness** metric measures the success rate for line supervisors to promptly perform an initial investigation when safety incidents occur.
- The CAPA Completion metric measures the timeliness of completion for assigned corrective and preventive actions after an incident has occurred.
- The Training Completion metric measures the completion status of assigned EHS training for affected employees.

These four leading metrics represent an effort to incentivize line management to deliver on their responsibility of assuring safety awareness, correcting safety problems and creating a culture of early reporting of incidents to prevent more serious events from occurring. We plan to continue reporting on the effectiveness of this leading metrics reporting technique in future reports.

STARI – Our New EHS Incident Management System

One important program completed during 2007 was the company-wide launch of a new EHS incident reporting system. The STARI system, which stands for System for Tracking and Reporting Incidents, is a company developed intranet-based tool available to all employees. Personnel across all of our operations are urged to report any environmental, health or safety incidents so that necessary improvements can be made to improve our performance and minimize our risks. Genentech employees use this system to report safety suggestions and near miss events. Also reported are injury and illness events, environmental issues and property damage events.

When an individual enters details regarding an incident or idea, the STARI system starts a cascade of notification e-mails to inform line management and EHS staff of the event so that the issue can be properly investigated. The initial investigations lead to appropriate corrective action. From there, the incident is assessed for risk using our EHS risk assessment process, and if deemed necessary, a root cause analysis is performed and preventive actions identified, assigned and completed. The STARI system processed more than 4,000 events during 2007. The flowchart below depicts the life cycle of an EHS incident from reporting, through investigation and corrective action, risk assessment, root cause analysis and preventative action.



EHS Incident Life Cycle

Root Cause Analysis and Preventive Actions are only required for incidents ranked as high risk, otherwise these steps are optional

Oceanside Fire Response

As wildfires raged across Southern California in October 2007, Genentech's Oceanside campus supported its employees by providing families and their pets with safe and comfortable onsite shelter as well as food. Evacuated employees were accommodated in local hotels, and assistance was provided to employees who needed to make insurance claims. EHS Manager, Joe Hess, was evacuated from his home, and he recalls his thoughts during the early morning evacuation. Joe says, "It was a very stressful time, but it was great knowing that Genentech would accommodate my family's needs for the week and in the future if needed, allowing me to focus on campus operations." Within hours of the fire starting, Joe helped set up an Emergency Operations Center, which was maintained throughout the eight days that the fire threatened the area. Contingency plans were put in place to protect our employees, protect our facility and save our inventory.

In response to the wildfires, Genentech contributed \$100,000 to the "Biotech Fund First Responders," a fund arranged by BIOCOM (a life science association based in Southern California) to support the San Diego Foundation. This local nonprofit organization works closely with disaster relief organizations such as the American Red Cross and the Salvation Army. The gift supported immediate response and recovery activities, primarily to provide food, shelter, housing and healthcare needs to people in the affected areas. Genentech's matching funds program enabled employees who made personal contributions to double their gift. Like the company did after Hurricane Katrina, Genentech raised the limit on matching funds to \$10,000 per employee.

Employee Wellness

Our responsibility for the wellness of our employees is a natural extension of our core commitment to improving the state of human health. Genentech is committed to helping employees and their families lead healthy and balanced lives.

Health and Fitness

In 2007, Genentech continued the success of Club Genentech, its state-of-the-art onsite fitness center in South San Francisco, which offers free membership to all employees, and has steadily increased its membership to nearly 5,200 employees.

Genentech's commitment to employee fitness extends beyond South San Francisco. The Oceanside facility also has an onsite fitness center and holds regular exercise classes. In addition, the company provides free membership to a local sports club for its Vacaville and Oceanside employees. Any Genentech employee not located at one of the company's three main facilities can receive reimbursement for the cost of participating in fitness activities.

In 2007, Genentech Vacaville's African Americans in Biotechnology employee group proposed a Health and Fitness Challenge to management, where teams of four to six employees compete to win prizes for losing the most weight. The program was rolled out in October 2007 at a company health fair, and over 20 percent of Vacaville employees signed up for the challenge. The contest will run through the first half of 2008, with monthly weigh-ins.



Illness Prevention and Response

Promoting healthy lifestyles is an important objective of Genentech. The company has an active program of offering free flu shots to employees, and in 2007, an increased number of vaccinations were provided through health fairs, onsite clinics, sales meetings and coupons for employees not near a main campus. The total number of vaccinations increased from nearly 3,800 in 2006 to more than 5,000 in 2007 due to awareness campaigns and more convenient options. Annual flu vaccinations help keep employees healthy and active during the flu season.

Over 100 Automated External Defibrillators (AEDs) were installed in locations throughout our campuses in 2007. AEDs can prevent deaths from sudden cardiac arrest if available for immediate use.

Community Wellness

Genentech holds quarterly blood drives at our main sites, and enjoys active participation by its employees. The blood is donated to local blood banks, where it provides a much needed resource to people in the community. In 2007, the program was expanded in South San Francisco to set up collection sites at three locations on campus. Employees who donate blood receive a gift certificate to a local sports equipment store.

Genentech and our employees support a number of healthrelated causes through charity bicycle races (see story on page 25), walks and runs. Teams from Genentech regularly participate in the American Heart Association's Heart Walk, the Susan G. Komen Foundation's Race for the Cure, the San Francisco AIDS Walk, the American Cancer Society's Relay for Life and several other charitable events. To support its employees' efforts, Genentech provides matching funds for employees' charitable contributions.

Ergonomics

Ergonomic-related injuries are painful for employees and costly for the company. Our goal is to implement effective ergonomic solutions that protect employees and enhance productivity at Genentech.

A majority of Genentech's overall lost workdays in 2006 were attributed to cumulative trauma injuries, so in 2007 we made this a focus area, and implemented a web-based office ergonomics system. The purpose of the system is to proactively assess risks that can contribute to fatigue, reduce the quality of work and lead to ergonomics-related discomfort or cumulative trauma injuries. Employees take a personal online assessment and training, and they and their supervisor are sent individualized recommendations to reduce the risks related to both workstation set-up and work practices. Employees' risk profiles are identified, and subsequent periodic assessments track the improvement in these profiles.

The program was piloted in 2007 in South San Francisco, Vacaville and Oceanside. Participation during this first year was 28 percent of the total workforce. In 2008 we will continue a phased roll-out of this program, with a target of increasing employee participation to 75 percent.

While this program is still young, initial indications are that our lost work days due to ergonomics issues are decreasing. In 2006, cumulative trauma accounted for 85 percent of all lost work days, while in 2007 this was reduced to 48 percent. Additionally, the number of lost work days for cumulative trauma injuries per 100 employees has been reduced from an average of 11.6 in 2006 to 5.8 in 2007, indicating that by increasing awareness and catching problems sooner, we can reduce the severity of these problems.

At our South San Francisco campus, employees are encouraged to visit any of our ergonomics showrooms. In the showroom, they can work with the ergonomics team to try out various workstation setups with a range of ergonomic chairs, alternative keyboards or mice, and other office tools. After visiting the showroom, they can purchase recommended improvements through the online ergonomic product list. Our website and showrooms are also a resource for laboratory and manufacturing ergonomics interventions. If needed, employees can schedule an evaluation by an ergonomics specialist in their office, laboratory or manufacturing work area.

Genentech Bicycle Club

In support of Genentech's emphasis on providing a "great place to work" we have a variety of wellness-related clubs, including clubs for cycling, running, golf and skiing.

One of the most active clubs is the Bicycle Club, which has over 400 members from South San Francisco, Vacaville and Oceanside sites. Some commute by bike, some organize lunchtime rides and some regularly participate in charity bike rides.

Pictured here are Michelle Valintis, Paige Lloyd and Scott Steele at the Waves to Wine ride in May 2007, where about 100 Genentech riders raised \$68,000 for Multiple Sclerosis. Scott says, "It is great to work for Genentech and with employees who give so much back to our communities. It feels great to contribute towards finding cures and raising community and public awareness."

For over eight years, riders from South San Francisco and Vacaville have donned Genentech Bicycle Club jerseys and participated in the American Diabetes Association's Tour de Cure in Napa Valley. They also regularly participate in the American Lung Association's Bike for Breath and the Festa Foundation's Giro di Peninsula Bike Ride.

Each year on Bike to Work Day, the Bicycle Club organizes group rides, a lunchtime barbeque and tricycle races.



Sustainability Data and Supporting Notes

Sustainability Metric	Units	2004	2005	2006	2007
% Increase in Marketed Product compared with 2004	%	_	16	69	125
Total Water Use	m ³	1,624,318	1,655,026	2,397,769	2,538,855
Direct Energy Use	1000 GJ				
Electricity		680	743	858	998
Natural Gas		726	795	991	1,237
Diesel Fuel		28	36	43	16
Total Direct Energy Use		1,434	1,574	1,892	2,251
Energy-Related Greenhouse Gases	${\rm Metric\ tons\ CO}_{_2}$				
Direct Emissions					
Natural Gas		36,417	39,805	49,607	62,245
Diesel Fuel		2,022	2,428	3,126	1,138
Indirect Emissions					
Electricity		69,202	75,400	90,207	110,461
Total Energy-Related GHG Emissions		107,641	117,633	142,940	173,844
Transportation-Related Greenhouse Gases	${\rm Metric\ tons\ CO}_{_2}$				
Business Travel (Road)		7,226	7,989	9,323	10,027
Business Travel (Air)		13,855	17,179	19,797	20,594
Employee Commuting (SSF only)		Not available	Not available	33,088	30,972
Total Transportation-Related GHG Emissions ⁵		21,081	25,168	29,120	30,621
Volatile Organic Compound (VOC) Emissions	Metric tons	18.3	18.7	21	22
Hazardous Waste (including U.S. Regulated waste)	Metric tons				
Incineration		_	336	440	460
Landfill		_	110	3,0856	75
Recovery (Recycling)		-	31	44	41
Other Recovery ⁷		_	—	_	22
Other Treatment		_	1,851	3,165	3,700
Total Hazardous and other U.S. Regulated Waste		Not available ⁸	2,328	6,734	4,299
Non-Hazardous Waste (excluding U.S. Regulated waste)	Metric tons		6,006		
Incineration		0	0	0	6
Landfill		2,427	3,089	3,583	4,058
Recovery (Recycling)		766	1,454	3,024	2,936
Other Recovery ⁷		_			2,677
Total Non-Regulated Waste Generation		3,193	4,543	6,607	9,677
Recovery Rate (non-hazardous waste)	%	24	32	46	58
Safety Metrics					
Injury/Illness Incident Rate	—	1.9	1.6	1.37	1.3
Days Away / Restricted Time Rate	-	1.44	1.02	0.82	0.59

⁵ For the purpose of comparison, the 2006 and 2007 Transportation-Related GHG emissions totals do not include the employee commuting emissions.

⁶ The reason for the large increase in landfilled hazardous waste during 2006 is due to a ground excavation project completed by Genentech as part of a brownfield development. This project resulted in the excavation of 2,971 metric tons of soil containing naturally occurring asbestos. Removal of this waste stream from the figures results in a total 2006 South San Francisco hazardous waste figure of 1,136 metric tons and a total Genentech-wide hazardous waste figure of 3,035 metric tons.

⁷ All recovered waste is shown under the Recovery (Recycling) category for 2004-2006 although a small proportion during these years will have been subject to other forms of recovery such as composting. We started to distinguish between recycling and other forms of recovery in our tracking systems in 2007.

⁶ In our 2004 Report, we reported data on a specific type of regulated waste generated by our production facilities, known as TMAC. We have not included this data in the 2004 column as it is not comparable with the full hazardous waste data set provided for 2005-2007.

Notes to Support the Data Table

General Notes

- In order to balance the value of data against the cost of gathering that data, Genentech uses a de minimis threshold of 5 percent.
 - If a facility falls beneath this de minimis threshold for all sustainability metrics, that facility is generally excluded from this report.
 - Note: For greenhouse gas metrics, we have applied the definition of de minimis given in the California Climate Action Registry Protocol.
- To ensure the quality of reported data, Genentech has a policy of internally tracking data at new facilities for two years before publishing for the public. Genentech's new facilities, such as Hillsboro, Oregon, and Louisville, Kentucky, are planned to be included in future issues of this report after this two-year period.
- In line with the above-mentioned policy, the 2005 and 2006 data reported in our previous Sustainability Report have been updated to include our Oceanside, California, facility, which Genentech acquired in June 2005.
- The 2005 and 2006 data presented in this report are for the following production facilities: South San Francisco, Vacaville and Oceanside, California, and Porriño, Spain, as well as the research, development, commercial and administrative offices at our South San Francisco headquarters. The 2007 data excludes the Porriño, Spain, facility which was sold to Lonza at the end of 2006.
- This report does not include performance data for joint ventures or outsourced operations.
- All figures in the Data Table, with the exception of figures less than 20, are rounded to the nearest whole number. Due to this rounding, the individual elements of the Data Table may not always add up to the totals.
- All electricity, natural gas and water data are based on meter readings provided by our utility vendors. Data are presented for buildings owned by Genentech and for which Genentech holds a capital lease. No data are shown for buildings which Genentech owns and leases out to third parties.
- The following notes relate to specific metrics presented in the data table.

Energy-Related Greenhouse Gases (GHG)

- As Genentech now reports greenhouse gas emissions to the California Climate Action Registry (the Registry), our 2005 and 2006 data has been re-stated to be consistent with the Registry protocols.
- These data present direct greenhouse gas emissions associated with the use of natural gas and diesel fuel by Genentech's production facilities, and indirect greenhouse gas emissions associated with the use of electricity.
- Greenhouse gas emissions have been calculated in line with the Registry's General Reporting Protocol (version 2.0 for 2005 and 2006, and version 3.0 for 2007 emissions). The greenhouse gas emissions reported for 2005, 2006 and 2007 are consistent with the data submitted by Genentech to the Registry and verified by a third party under the Registry's program.
- In line with the requirements for years 1-3 of the Registry's program, we have calculated CO₂ emissions associated with our energy use. Other greenhouse gas emissions (i.e., methane and nitrous oxide) are estimated at 0.005 percent of our total energy related emissions.
- The emissions factors used to calculate the energy-related greenhouse gases are shown in the tables below.

Site (Year)	Emissions Factor	Description & Source
South San Francisco, Vacaville and Oceanside (2005-2006)	0.805 lb/kwh	A regional emission factor (WECC) was used in line with guidance given in Version 2 of the California Climate Action Registry Protocol. Original source: U.S. EPA Emissions & Generation Resource Integrated Database E-grid http://www.epa.gov/cleanenergy/egrid/index.htm
Porriño (2005-2006)	0.383 kg/kwh	Emission factor for Spain from Worldwide Emissions Factors, The GHG Indicator: http://www.uneptie.org/energy/tools/ghgin/docs/GHG_Indicator.doc Original source: International Energy Agency "Carbon dioxide emissions from fossil fuel combustion 1971-1984"
South San Francisco, Vacaville and Oceanside (2007)	0.879 lb/kwh	A regional emission factor (WECC) was used in line with guidance given in Version 3 of the California Climate Action Registry Protocol. Original source: U.S. EPA Emissions & Generation Resource Integrated Database E-grid (updated in 2007) http://www.epa.gov/cleanenergy/egrid/index.htm

Electricity-Related CO₂ Emissions Factors

Natural Gas-Related CO₂ Emissions Factors

Site (Year)	Emissions Factor	Description & Source
South San Francisco, Vacaville and Oceanside (2005-2006)	5.2785 kg CO ₂ /therm	This is a United States-wide emission factor used in Version 2 (2005 and 2006) of the California Climate Action Registry Protocol. Original source: U.S. EPA, "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2000" (2002), Table C-2, page C-2.
South San Francisco, Vacaville and Oceanside (2007)	5.306 kg CO ₂ /therm	This is a United States-wide emission factor used in version 3 (2007) of the California Cli- mate Action Registry Protocol. Original source: U.S. EPA, Inventory of Greenhouse Gas Emissions and Sinks: 1990-2005 (2007), Annex 2.1

Diesel-Related CO₂ Emissions Factors

Site (Year)	Emissions Factor	Description & Source
South San Francisco, Vacaville, Oceanside and Porriño (2005-2006)	10.05 kg CO ₂ /gallon	This is the emission factor used in Version 2 of the California Climate Action Registry Protocol. Original source: California Energy Commission, Inventory of California Greenhouse Gas Emissions and Sinks: 1990-1999 (November 2002); and Energy Information Administration, Emissions of Greenhouse Gases in the United States 2000 (2001), Table B1, page 140. http://www.eia.doe.gov/oiaf/1605/ggrpt.
South San Francisco, Vacaville and Oceanside (2007)	10.15 kg CO ₂ /gallon	This is the emission factor used in Version 3 of the California Climate Action Registry Protocol for distillate fuel oil (#1, 2 and 4). Original source: U.S. EPA, Inventory of Greenhouse Gas Emissions and Sinks: 1990-2005 (2007), Annex 2.1.

Transportation-Related Greenhouse Gases (GHG)

- Business travel
 - The road travel data present CO₂ emissions arising from U.S.-based road travel by Genentech employees for business purposes. The air travel data present CO₂ emissions arising from flights made by Genentech employees, which originated in the U.S., and which were booked through Genentech's official travel agency; travel booked through alternative means is not included.
 - The 2005 and 2006 reported data have been revised to reflect a more U.S. relevant and updated emission factor of 0.35kg CO₂/mile for road travel. The factor is based on 8.87kg CO₂/gallon of gasoline (source: Energy Information Administration) and an average fuel economy of 25.4 miles/gallon (source: U.S. Department of Energy Transportation Energy Data Book, 2007).
 - The air travel emissions calculation was made using a conversion factor of 0.20kg CO₂/mile for medium haul flights (taken from the World Resource Institute's Mobile Combustion Emissions Tool 2005).
- Fleet GHG
 - We do not report GHGs from Genentech's on-site fleet because these emissions fall beneath Genentech's 5 percent de minimis threshold, thereby enabling Genentech to maintain focus on environmental metrics of significant magnitude.
- Employee commute emissions
 - Employee commuting emissions estimates were based on the results of cordon counts to establish modal split at the point of entry to Genentech's campus. These data were supported by additional information related to the Genentech shuttle fleet and data available from third parties, such as emission factors for the local public transit provider, Bay Area Rapid Transit. The study makes several assumptions such as the average distance traveled by Genentech employees traveling alone and the composition of the Genentech employees' vehicle fleet. The World Resource Institute's Employee Commute tool was used as the source for CO₂ conversion factors.

Volatile Organic Compound (VOC) Emissions

- VOC emissions figures reflect solvent wipe cleaning associated with manufacturing. Other sources of VOCs (such as boilers and generators) are excluded.
- The products included in the data are alcohol wipes, solution (70 percent alcohol/30 percent water) and reagent alcohol. The solvent types represented are ethanol, methanol and isopropanal.
- The methods for calculating VOC emissions vary by site to align with the local air quality management district's regulatory procedures. For South San Francisco and Vacaville, the data are based on an assumption that 100 percent of the solvent used by Genentech is emitted to air as VOCs. In practice, the actual VOC emissions are likely to be lower because some solvent will be retained on used wipes. For Oceanside, the VOC emissions calculations take into account the amount of solvent retained on used wipes, removed from the facility as drummed waste.

Hazardous Waste (Including U.S. Regulated Waste)

- Hazardous waste includes waste regulated as hazardous under federal or national law; and for the U.S. sites, wastes regulated as hazardous in the State of California and wastes regulated as universal under federal law.
- The 2005 and 2006 reported data for the U.S. sites have been updated to reflect more accurate data for these years provided by our hazardous waste vendor.
- Regulated waste reported under the Other Recovery category in 2007 represents organic waste which is sent off-site for use as an incineration fuel.
- Wastes reported under the Other Treatment category are subject to waste water treatment or stabilization.
- TMAC waste is an aqueous by-product of a purification process used at our production facilities, and is sent for special treatment at an off-site wastewater treatment plant. TMAC makes up over 90 percent of our total waste that is regulated as hazardous.

Non-Hazardous Waste Production (Excluding U.S. Regulated Waste)

- The data are for all waste types that are not captured in the hazardous waste category.
- The data does not include electronic waste taken off site by our e-waste vendor for reuse or recycling. This equates to approximately 170 metric tons in 2007.
- The data are based on actual weights where these are available (e.g., compactors) and otherwise estimated weights using an average weight per container combined with the number of container pick-ups during the reporting year.
- Due to a lack of reliable information, the 2005 data does not include non-hazardous waste removed from our Oceanside facility. The facility commenced operations in June 2005 and did not start production until late 2006.
- Non-regulated waste reported under the Other Recovery category in 2007 is subject to composting.
- Recovery rate (%) is the total weight of recovered waste divided by the total weight of recovered and non-recovered waste x 100.
- Data for pallets, plastics, amber glass, scrap metal and compacted cardboard are not available for quarters 1 and 2 of 2007 for the South San Francisco facility and have been estimated based on the waste quantities produced in quarters 3 and 4 of 2007. These waste streams represent approximately 2 percent of the total 2007 South San Francisco non-hazardous waste.
- The 2006 company-wide recycling rate shown in the data table for the South San Francisco, Porriño and Oceanside facilities. For this reason, we have excluded 2006 data and focused on comparisons between 2005 and 2007 when comparing company-wide trends in recycling rate elsewhere in this report.

Injury and Illness Rate (IIR)

IIR is measured as the number of injuries/illnesses that resulted in medical treatment beyond first aid, divided by the total number of hours worked by all employees in the past year. The number is then multiplied by 200,000 (the number of hours that 100 employees would work in a year). This last step allows easy comparison with statistics used by other companies and the government. The equation for calculating the IIR is:

Number of injuries/illnesses that resulted in medical attention beyond first aid

X 200,000

Total hours worked by all employees in the past year

Days Away/Restricted Time Rate (DART)

The DART is measured as the number of injuries and illnesses that resulted in an employee missing one or more days of work or working with restrictions for one or more days, divided by the total number of hours worked by all employees in the past year. As with the IIR, the number is then multiplied by 200,000 (the number of hours that 100 employees would work in a year). The equation for calculating the DART is:

Number of injuries/illnesses that resulted in an employee losing one or more days of work, or working one or more days with restrictions

X 200,000

Total hours worked by all employees in the past year

Since September of 2005, we have been collecting feedback and ideas on our published EHS Sustainability Reports. We also track the number of readers that access our report from our website. These numbers have remained steady over the last year and we experience approximately 500 – 800 "hits" per month on our Sustainability Report with 1300 to 2000 page viewings within the report.

While we did not receive a large number of specific questions on last year's report, we have received favorable feedback about the extent of information that we provide and the overall quality of the report.

We have learned from our own internal resources that we receive less telephone and direct mailing enquiries from interested parties about our sustainability programs now that much of this information is readily available through our annual website posting of our Sustainability Report.

We have received enquiries in the past about a variety of topics including:

Alternative Energy: Interest continues in the potential to use solar or wind power to supplement Genentech's energy needs. As described in this report, the company continues to evaluate these emerging technologies for their potential as responsible investments and effective solutions.

Mass Transit: We continue to receive interest and suggestion for our use of mass transit programs. This year's report provides much detail on our efforts in this area.

Recycling: Interest was expressed in our ability to recycle laboratory Styrofoam waste. As detailed in this report, we have a variety of efforts and mechanisms to select appropriate methods for managing waste products.

We use a web-based system for collecting feedback about our reporting efforts. That system can be accessed by visiting www.gene.com, clicking on "About Us" and then "Sustainability."

We look forward to receiving your feedback and suggestions.

INDEPENDENT ASSURANCE STATEMENT

Introduction and objectives of work



Bureau Veritas Certification was engaged by Genentech to conduct an independent assurance of its draft <u>2007</u> <u>Corporate Sustainability Report.</u> This Independent Assurance Statement applies to the related information included within the scope of work described below.

The accuracy and completeness of the information contained in the draft <u>2007 Corporate Sustainability Report</u> is the sole responsibility of the management of Genentech. Bureau Veritas Certification did not participate in the drafting of the Report. Our sole responsibility was to provide independent assurance on the accuracy of information included.

Scope of work

Genentech requested Bureau Veritas to provide limited assurance for the following:

Data and information included in the 2007 Corporate Sustainability Report.

Excluded from the scope of our work is any verification of information relating to:

- Activities outside the defined verification period;
- Positional statements (expressions of opinion, belief, aim or future intention by Genentech) and statements of
 future commitment;
- Data and information referenced in other corporate documents and publications.

Methodology

As part of its independent assurance process, Bureau Veritas undertook the following activities:

- 1. Interviews with relevant personnel of Genentech;
- 2. Review of documentary evidence produced by Genentech;
- 3. A sample approach for performance data.
- 4. Review of Genentech management systems for quantitative data aggregation and analysis;
- 5. Concurrent verification of the 2007 Genentech GHG assertion under the verification protocols of the California Climate Action Registry.

Our work was conducted against Bureau Veritas' standard procedures and guidelines for external Assurance of Sustainability Reports, based on current best practice in independent assurance. We used the International Standard on Assurance Engagements (ISAE) 3000, "Assurance Engagements Other than Audits or Reviews of Historical Financial Information", developed by the International Federation of Accountants.

The work was planned and carried out to provide Basic, rather than Absolute assurance and we believe it provided an appropriate basis for our conclusions.

Our findings

On the basis of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the reviewed statements within the scope of our verification
 are inaccurate. We believe the information is fairly stated.
- It is our opinion that Genentech has established appropriate systems for the collection, aggregation and analysis of quantitative data such as that provided in the <u>2007 Corporate Sustainability Report</u>.

Statement of independence, impartiality and competence

The Bureau Veritas assurance team was qualified to conduct this assessment based on training and experience. All assurance activities were conducted impartially. No member of the Bureau Veritas assurance team has a business relationship with Genentech, its Directors or Managers beyond that required of this engagement. We have conducted this assurance process independently and have determined there is no conflict of interest.

Bureau Veritas has implemented a Code of Ethics across our business to maintain high ethical standards among staff in their day-to-day business activities.

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Social and Environmental management with 180 years of history in providing independent assurance services.





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