

环保行业英语

**ENGLISH for
ENVIRONMENTAL
PROTECTION**

刘晓毅 邓 音 高俊霞 / 主编



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环保行业英语

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前言

教育部高等学校高职高专英语类专业教学指导委员会在 2009 年《高等职业教育英语课程教学要求》（试行）中明确了行业英语作为高职英语教学改革的重要方向，要求高职英语教学最大程度贴合岗位群和高职学习者的英语需求，强化高职学习者在行业背景下的英语实际应用能力的形成和提升。行业英语作为专业的公共基础课，打破了与专业的孤立，是基础课程融入行业、企业、职业、专业的必经改革之路。

《环保行业英语》的编写基于 CBI（Content-based instruction）理念，将环保学科内容与英语学习全程融合，通过具有环保背景的语言素材提高语言能力，真正体现高职英语教学与行业专业的关联性。

一、教材设计理念与特色

1. 以建构主义为指导

基于建构主义教学理念而编写的教材内容丰富、任务形式多样、注重为学生认知搭建支架。跟随该教材学习，环保类专业学生能根据已有的认知和经验去触动语言学习与专业学习的关联点，获得新的意义建构，从而提高学生的学习动机，掌握环保行业英语知识。

2. 内容体系构建基于教学需求调研

通过对环保行业专家、从业人员、工程师、专业课教师、毕业生反馈的英语教学需求进行分析，构建了《环保行业英语》的主题框架和内容体系。选材涵盖了行业交际话题、环保学科的导论、行业核心概念的介绍、发展趋势等。

3. 语言素材的权威性和真实性

在教材编写过程中，我们查阅并收集了大量的资料，有些资料来自国际知名的英文报刊杂志或专业期刊如 *China Daily*, *National Geography*, *Environmental Science and Pollution Research*, *Journal of Material Cycles and*

Waste Management; 有些来自权威的英文网站公开资源如 English CCTV; 有些来自环保领域经典的英文原版教材如 *Wastewater Engineering Treatment and Reuse*; 有些来自真实的行业场景如广州国际环保展会上的环保设备英文介绍、环保软件说明书等。所有选材均标注来源。我们对入选的素材进行分析、难度调整、语言点提炼等, 确保语料的适用性和实用性。

4. 任务的多样性与专业核心词汇的重复性

该教材的教学任务设计有视听、精读、泛读、简历写作、口语展示、环保设备海报设计、翻译、各种巩固高频词汇的题型如 crossword 等。既有巩固语言基本功的固定题型, 也有新颖的 mini project 题型, 能充分引起学生的学习兴趣, 开展合作学习, 提升英语语言技能。此外, 为了强化专业核心词汇记忆, 编者有意识通过语言点练习、Special Word Bank、素材选择等方式凸显和重现核心单词, 让学生在不同的语篇和语境多次碰到同一个高频单词, 熟练掌握其意思和用法。

5. 难度长度递进, 适应不同层次学生水平和分层教学模式

为了适应高职不同层次学生的水平和部分院校分层教学需要, 编者对教材的难度和长度进行了递增设计。Reading A 和 Reading B 长度控制在 200 个单词左右, 难度适中, 适合所有层次学生深入学习; Reading C 和 Reading D 难度加大, 可作为高层次班、高本衔接班、英语基础较好的学生泛读素材, 拓展延伸。

6. 数字化资源的融合

随着职业教育信息化进程的不断推进, 信息化教学环境的常规构建以及学生信息获取方式的变革促使我们思考教材与数字化资源的融合创新。编者们以教材为蓝本, 配套建设了视听资源和拓展资源的教材公众号和课程网站, 为教师和学生提供不受时空限制, 丰富生动的网络教学资源。

二、教材体例与使用

本教材共有 15 单元, 每个单元包括 5 大部分。

1. **Topic lead-in**——每个单元由一个主题相关的英文视频导入, 提前输入视频出现的新单词, 并设计相关题目, 提高精听的效果。了解环保行业相关信息的同时提高英文听力技能。教师可指导学生扫二维码, 课后再反复练习听力。

2. **Reading**——Reading A—Reading D 四篇文章围绕同一主题, 具有一定的关联也有一定的角度区分, 难度和长度递进, 如从科普进阶到技术含量较高的语言素材。教师根据学生水平和需要进行选择(如中低层次班、中高

衔接班可以只上到 Reading B；高层次班和高本衔接班可以从 Reading A 学到 Reading D）。

3. **Vocabulary Focus**——相关主题领域的核心高频词汇在 Special Word Bank 进行总结归纳重现，并挑选英文常用前后缀辅助学生词汇学习。

4. **Language Exercise**——教材全程融入语言基本功的训练，满足学生参加各类英语水平等级考试的需求，增加了 Language Exercise 部分，题型包括 Vocabulary Exercise, Grammar Focus, Sentence Translation。

5. **Mini-Project**——根据主题设计不同的学习任务，涵盖听、说、读、写、译的技能训练。教师可根据项目要求选择课内完成，课后由学生个人自主完成，或由学习小组合作完成。

该教材全程融入语言基本技能训练，可适用于一学年的行业英语教学模式。第一学期上 1~5 单元，了解环保行业公司、岗位职责、全球环境问题等内容，进入环保行业英语语境；第二学期可以根据专业方向侧重选择有专业特色的单元进行教授。

三、编写队伍

《环保行业英语》由广东环境保护工程职业学院刘晓毅、邓音、高俊霞主编，参编人员有苗婷婷、唐慧盈、周颖。

该教材在编写过程中得到了中国环境出版集团的大力支持，在此表示诚挚的感谢。该教材填补了目前高职环保行业英语教材的空白，但由于编写时间和编者水平有限，不足在所难免。敬请各位专家、教师及广大的同学提出宝贵的意见，也欢迎全国环保职业学院的同行参与行业英语的教学改革，在教改过程中不断改进完善教材内容和设计。

若需教材课件或对教材有任何意见请发邮件至 184332447@qq.com。

编 者

2018 年 8 月

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Unit 1

Company

In this unit, you will learn:

- 1. the general introduction to a company*
- 2. company organization chart*
- 3. environmental sustainability mission for a company*
- 4. simple steps of making manufacturing processes eco-friendly*
- 5. prefix "re-" and suffix "-ance"*
- 6. the gerund*
- 7. to introduce a company orally*

Topic Lead-in

Green Summit



New words

entrepreneur [ˌɒntɹəprəˈnɜ:(r)] *n.* 企业家

summit ['sʌmɪt] *n.* 峰会

sustainable [sə'steɪnəbl] *adj.* 可持续的

manufacturer [ˌmænjuˈfæktʃərə(r)] *n.* 制造商

charge [tʃɑ:dʒ] *v.* 充电

annual ['ænjuəl] *adj.* 年度的

figure ['fɪɡə(r)] *n.* 数字

strategy ['strætədʒi] *n.* 战略; 策略

dissipation [ˌdɪsɪ'peɪʃn] *n.* 消耗; 耗散

account for (在数量、比例上) 占



Scan the QR code and watch the news. Answer the following questions based on what you hear.

1. How many companies were chosen as “green companies”?
2. These “green companies” were recognized for their efforts including developing _____, having a sense of social responsibility and _____ for the environment.
3. According to the interviewee, projects related to green concepts account for _____ percent of their production.

Reading A ESS Company Profile



Environmental Systems Service, Ltd. (ESS) is an independent company offering high quality **technical** services in the chemical and biological sciences. Services are provided in the disciplines of environmental **consulting**, water and **wastewater treatment**, **field sampling** and environmental **testing**. The firm is a privately held corporation and is not a subsidiary of another company. Its product is accurate and timely technical information provided

confidentially at a reasonable cost.

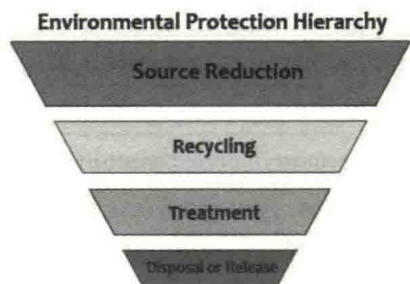
ESS was organized in 1973 in Culpeper, VA as a contracts operations company to provide water and wastewater **operations** and **maintenance** services. Subsequently, an in-house **laboratory** was **established** to support the operating functions. Our Bedford, Virginia **facility** was added in 1978 to handle food and dairy **analysis**.

The majority of our clients are in the Mid-Atlantic States and clients **range from** small independent companies **to** Fortune 500 companies.

Our **mission** is to provide accurate and timely technical information at a reasonable cost. We are **committed** to environmentally responsible operations, which include using natural resources wisely and considering the overall **impact** on the environment.

Environmental **sustainability** practices are incorporated by identifying and **implementing techniques** and practices that emphasize the environmental **management hierarchy** of pollution **prevention** (source reduction), reuse, **recycling**, treatment, and environmentally safe **disposal**.

ESS is proud of its growth and the ongoing professional development of its staff. Recognizing the value of customer satisfaction,



our goal is to provide exceptional service with quality results in a timely manner.

(Source: Company Official Site)

Task 1: Word matching.

1. technical ['teknɪkl] *adj.*
2. consult [kən'sʌlt] *v.*
3. wastewater ['weɪstwɔ:tə(r)] *n.*
4. field sampling
5. testing ['testɪŋ] *n.*
6. laboratory [lə'bɒrətɪ] *n.*
7. establish ['stæblɪʃ] *v.*
8. facility [fə'sɪləti] *n.*
9. range from ... to
10. mission ['mɪʃn] *n.*
11. be committed to
12. impact ['ɪmpækt] *n.*
13. technique [tek'ni:k] *n.*

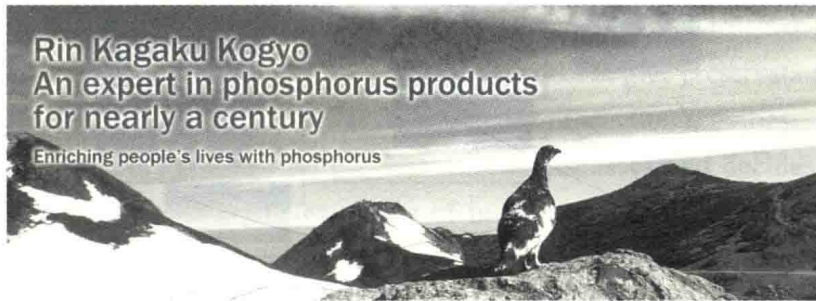
- A. 现场取样
- B. 建立
- C. 从……到……范围
- D. 技术
- E. 设备; 设施
- F. 废水; 污水
- G. 技术的
- H. 影响
- I. 致力于
- J. 测试; 试验
- K. 咨询
- L. 实验室
- M. 使命

Task 2: Look up in your dictionary and write down both the Chinese meaning(s) and derived form(s) of each word.

New words	Chinese Meaning(s)	Derived form(s)
treatment ['tri:tment] <i>n.</i>		
operation [,ɒpə'reɪʃn] <i>n.</i>		
maintenance ['meɪntənəns] <i>n.</i>		
analysis [ə'næləsɪs] <i>n.</i>		
sustainability [sə'steɪnəbɪləti] <i>n.</i>		
implement ['ɪmplɪment] <i>v.</i>		
management ['mænɪdʒmənt] <i>n.</i>		
prevention [prɪ'venʃn] <i>n.</i>		
recycling [,ri:'saɪklɪŋ] <i>n.</i>		
disposal [dɪ'spəʊzl] <i>n.</i>		

Task 3: Underline useful words and expressions in introducing a company in Reading A.

Reading B Rin Kagaku Kogyo Company Organization Chart

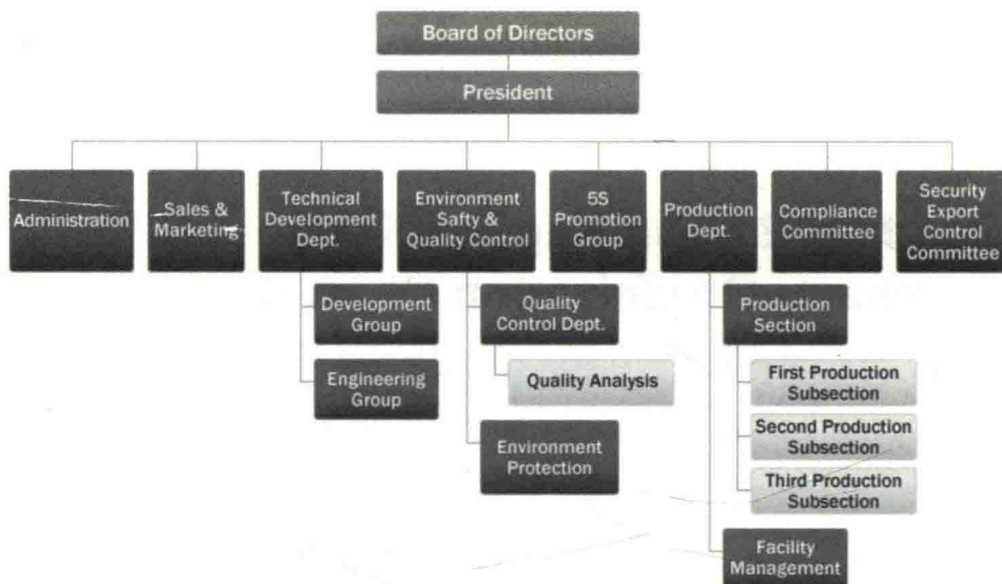


Rin Kagaku Kogyo is a chemical **manufacturer**, and is one of the companies in the Tosoh Group. As a pioneer in the **production** of phosphorus products, it is now expanding its business centered on the production of safe, high-quality phosphorus products.

In recent years there have been strong demands for “**compliance management**”, so that companies can develop **sustainably**. “Compliance management” involves carrying out **corporate** activities in a way that both **complies with** laws and **regulations** and respects social norms. In order to respond to such changing circumstances, this company has established compliance rules and guidelines. The basis of its compliance efforts is for each and every **employee** to strictly **observe** the rules that need to be kept in the process of carrying out day to day business activities, and to not perform any actions that **violate** these rules. “Compliance begins with the practical actions of each individual”. Having individual employee practice compliance in their everyday work, **in accordance**

with these compliance rules and guidelines, will enable a company to win people's trust, which will lead to sustainable development.

Below is its organization chart, with Compliance Committee included.



(Source: Company Official Site)

Task 1: Word matching.

1. manufacturer ['mænju'fæktʃərə(r)] *n.*
2. production [prə'dʌkʃn] *n.*
3. compliance management
4. sustainably [sə'steɪnəbli] *adv.*
5. corporate ['kɔ:pəreɪt] *adj.*
6. comply with
7. regulation ['regju'leɪʃn] *n.*
8. employee [ɪm'plɔɪi:] *n.*
9. observe [əb'zɜ:v] *v.*
10. violate ['vaɪələt] *v.*
11. in accordance with

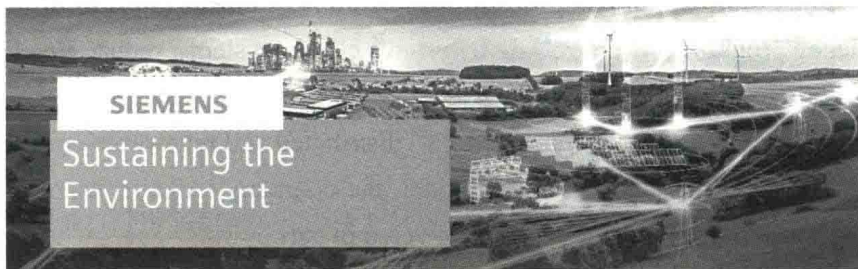
- A. 法规；规章
- B. 违反
- C. 公司的
- D. (动词) 遵守 (规则、法律等)
- E. 雇员
- F. 合规管理
- G. 制造商
- H. (名词短语) 与……一致；依照
- I. (动词短语) 遵守
- J. 生产
- K. 可持续地

Task 2: Complete the sentences with departments or committees in the organization chart from Reading B.

Example: Administration provides support and service for the Board and President.

1. _____ is involved in promoting and selling products.
2. _____ is to ensure the products are up to certain standards.
3. _____ is responsible for the development and manufacturing of products.
4. _____ is to ensure thorough observance of social norms as well as laws and regulations.
5. _____ works to give preservation of the world's environment top priority as they carry out production activities.
6. _____ discusses and decides on the details of activities, evaluates results of inspections, and advises on improvements regarding the implementation of Sort, Set in order, Shine, Standardise and Sustain.

Reading C SIEMENS—Developing Solutions to Minimize Impact on the Environment



Technological progress, globalization and population growth present **unprecedented**¹ **sustainability**² challenges—from natural resource **depletion**³,

to energy **conservation**⁴, to the **degradation**⁵ of the environment. And yet, with America's **abundant**⁶ energy **reserves**⁷, industrial leadership and influence in global affairs, the country has an opportunity to set a new course for sustainability. Siemens has been **privileged**⁸ to work closely with customers around the world in offering **attainable**⁹ solutions and meaningful partnerships as we all work toward the vitally important goal of reducing **emissions**¹⁰ and fighting climate change.

Siemens' **commitment**¹¹ is not **contingent on**¹² international treaties or regulations. The company does this because it is important to the planet, the country, to communities and to families. The products Siemens creates, the technologies invented, and the challenges solved will not only **lay the path to**¹³ environmental **preservation**¹⁴, but to energy independence and economic security as well. This **pursuit**¹⁵ will develop new markets, **inspire**¹⁶ new products, create new jobs, and **foster**¹⁷ new **career**¹⁸ opportunities.

In practical terms, Siemens' environmental sustainability **mission**¹⁹ is broken down into three key areas:

1. reducing harmful emissions;
2. using **energy efficiency**²⁰ to **conserve**²¹ resources;
3. and preserving America's precious and limited natural resources.

Siemens' goal is to be the first major industrial company in the world to achieve a net zero **carbon footprint**²² by 2030. The company is working to get halfway to that goal just three years from now, in 2020. This is an **extraordinarily**²³ **ambitious**²⁴ task considering Siemens has more than 60 manufacturing sites in the U.S. alone.

In order to cut our carbon emissions in half by 2020, Siemens plans to drive energy efficiency programs, **leverage**²⁵ **distributed**²⁶ energy systems, reduce **fleet**²⁷ emissions and purchase **renewable**²⁸ energy.

Here in the U.S., the company is **installing**²⁹ distributed and renewable-energy systems at a number of its facilities. As a model, the company looks to its **rail**³⁰ manufacturing plant in Sacramento, which is powered in part by **solar energy**³¹.

The cleanest energy is energy that isn't needed. Large buildings are the biggest users of energy across our communities. Thus, the quickest, most cost-effective way to use less energy and extend the country's energy supply is to make those

facilities more **energy-efficient**³². Siemens' Building Technologies has already helped customers save more than \$2 billion in energy and **operational**³³ costs. In Charlotte, Siemens built a certified manufacturing facility to Leadership in Energy and Environmental Design (LEED) standards to cut both costs and emissions during construction and operation. Looking forward, these are the kinds of activities the company looks to scale.

Fighting climate change and **sustaining**³⁴ the environment is the right thing to do. And, Siemens has the right people to do it.

(Source: Company Official Site)

- | | |
|----------------------------------|---------------------------------------------|
| 1. unprecedented <i>adj.</i> 空前的 | 19. mission <i>n.</i> 使命 |
| 2. sustainability <i>n.</i> 可持续性 | 20. energy efficiency 能效 |
| 3. depletion <i>n.</i> 消耗 | 21. conserve <i>v.</i> 保护 |
| 4. conservation <i>n.</i> 保护 | 22. carbon footprint 碳足迹 |
| 5. degradation <i>n.</i> 恶化 | 23. extraordinarily <i>adv.</i> 极其地 |
| 6. abundant <i>adj.</i> 丰富的 | 24. ambitious <i>adj.</i> 宏大的 |
| 7. reserve <i>n.</i> 储备 | 25. leverage <i>v.</i> 充分利用 |
| 8. privileged <i>adj.</i> 荣幸的 | 26. distributed <i>adj.</i> 分布式的 |
| 9. attainable <i>adj.</i> 可达到的 | 27. fleet <i>n.</i> 车辆 (指西门子在全球范围内所使用的全部车辆) |
| 10. emission <i>n.</i> 排放 | 28. renewable <i>adj.</i> 可再生的 |
| 11. commitment <i>n.</i> 承诺 | 29. install <i>v.</i> 安装 |
| 12. contingent on 取决于……的 | 30. rail <i>n.</i> 轨道 |
| 13. lay the path to 规划……的路径 | 31. solar energy 太阳能 |
| 14. preservation <i>n.</i> 保护 | 32. energy-efficient <i>adj.</i> 高能效的 |
| 15. pursuit <i>n.</i> 追求 | 33. operational <i>adj.</i> 经营的 |
| 16. inspire <i>v.</i> 赋予灵感 | 34. sustain <i>v.</i> 维持 |
| 17. foster <i>v.</i> 促进 | |
| 18. career <i>n.</i> 职业 | |

Task 1: Give brief answers to the following questions.

1. What bring sustainability challenges?
2. What is the important goal for Siemens and its customers?