



VERMONT LAW SCHOOL

**Implementing the Rule of Law While Maintaining Government Legitimacy:
Guangdong Spearheading China's Water Pollution Permitting System**

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I. INTRODUCTION

Water is arguably the world's most precious resource, vital to all ecosystems that sustain life on this planet. Safe and clean water sources are imminently threatened by anthropogenic endeavors such as hydraulic fracturing for shale gas, unsustainable agricultural practices, burning fossil fuels, and problematic wastewater management on behalf of industry, businesses and individuals. Water pollution is vehemently pervasive in China, where 26% of surface water is totally unusable, 60% of all surface water is unsuitable for fishing, and 60% of all rivers have such heavy pollution that they cannot be used for drinking.¹ Water pollution can be measured by calculating the amount of organic compounds found in the water, which is tested by looking at the chemical oxygen demand (COD). Controlling COD from industrial point sources has been the focus of recent legislation, and COD was reduced by 4.42% from 2007 to 2008 down to 13.207 million tones, or 132070 million kilograms of water.² Total wastewater discharge across China, however, increased 2.7% that year, rising to 57.2 billion t.³ In order for China to improve the quality of its waters, there must be (1) improved coordination among the various levels of government, (2) the force of legislation administered by the National People's Congress (NPC) must be greater than the might of local protectionism, and (3) more effective avenues of public participation must be implemented.

Despite China's seemingly insurmountable challenges to protecting scarce water resources and finding effective ways to treat wastewater, solutions are within reach. Aspects of improved government coordination include better resource allocation, continuous water quality monitoring, oversight, the widespread use of sophisticated wastewater treatment technology, and

¹ 2006 SEPA report, available at <http://english.mep.gov.cn/>.

² 2008 SEPA report, available at <http://english.mep.gov.cn/>; 1 tonne is equal to 1 cubic meter of water, or 1000 kg

³ *Id.* Used in this context, total wastewater discharge refers to all industrial pollutant discharge coming from a point source.



effective management practices. Moreover, local governance must encourage public participation to broaden oversight capability. Through effective legislation and agency implementation, these aspects can all be amalgamated in order to protect China's rivers, lakes, oceans, watersheds, and ecosystems.

Before the law can effectively be used as an instrument for controlling pollution, however, the overall legal infrastructure must be improved. There are many readily discernible challenges facing China's developing legal system. The judges and legal professionals working in the judicial system have limited expertise and training.⁴ More importantly, the cultural underpinnings of Chinese society are not based on a rule of law in which the powers of the judiciary are separate from those of the executive and legislative branches. All of these factors contribute to why the government has not yet been able to successfully integrate a fully functioning legal system.⁵ China has many laws and regulations that govern water pollution, but the purpose the laws were enacted to achieve are often at odds with reality and the purported effects such legislation is supposed to achieve.

In order to understand how the rule of law applies in any given system, one must understand the history, culture, traditions, and social institutions of that system. Chinese history is vast, and cultural institutions are complicated and often difficult to understand. While a rule of law analysis is beyond the scope of this paper, a brief discussion of how the law and governance are interrelated is warranted. Although China is not traditionally a legal culture, Chinese society is grounded in tradition with strong moral and ethical underpinnings. Accordingly, natural law principles associated with ingrained traditional values in Chinese society are related to 法 (fa),

⁴ Local officials hire judges and have authority to promote or fire them. Therefore, judicial decision-making is often influenced by local politics.

⁵ In order for the State Council to be successful in addressing the water woes of China, it must pass legislation that can be incorporated into the existing political and social institutions of the nation.



translated as law. In Chinese, the concept of 法 is associated with a culturally instilled expectation of how people conduct themselves in society. Broadly interpreted, notions of “law” are not meant to be a moral compass, but should guide human behavior and provide a framework for which the ruling authority can be held accountable. Despite differences in how the rule of law is applied in China as it is in other parts of the world, analogies can be drawn between how the law is applied in seemingly contrasting systems of governance. For example, the doctrine of sovereign immunity, as it applies in the U.S., can be applied similarly in China. In other words, governing structures inherent to both countries support the notion that it should be the province of the government to determine the terms and conditions under which it can be sued and held accountable for noncompliance with the law.

Chinese governance prioritizes social stability above all else, and its continuing practice to promote social welfare provides a strong foundation for which a legitimate legal system can be developed and fully integrated into society without undermining central authority.⁶ China must use the law to help achieve sustainable development by ensuring citizen involvement, transparency, and government accountability. In doing so, China can use the rule of law as a way to bolster its credibility as a nation governed by socialist principles, principles which coalesce with those associated with Western notions of Democracy.

Just as different nations are addressing global climate issues with varying levels of commitment, so too are different states of the U.S. and provinces of China at varying stages of implementing effective environmental regulations. This paper is primarily focused on Guangdong province because it has spearheaded the country with implementing national

⁶ BERT ENSERINK ET AL., *Public participation in China: sustainable urbanization and governance*, 18 *Management of Environmental Quality: An International Journal* 459-474, 461 (2007)(China’s policy on implementing sustainable urbanization strategy is consistent with eight major characteristics of good governance: participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive, and follows the rule of law.).



legislation over the past decade. Guangdong is like the California of China, and its capital city of Guangzhou is can be analogized to the progressive city of San Francisco. Although San Francisco's population is a meager 805,235 to Guangzhou's 15 million, both cities are on the forefront of environmental reforms.⁷

Guangdong is the manufacturing center of China. The southern port city of Guangzhou hosts the annual import and export Canton Fair, attracting businesspersons from all over the world, bringing in more wealth and resources to this region than elsewhere in China. Guangzhou in particular has led other cities by pioneering public participation hearing measures and making participatory governance more widely accessible. Accordingly, the province is an excellent focal point for analyzing how the water pollution permitting system is and can be developed in China.

Because much of China's WPPCL is modeled after the U.S. Clean Water Act (CWA), this paper will begin with a discussion of the national legislation for water pollution while looking at ways in which the U.S. law can provide a foundation for improving China's existing scheme. Following avenues for public participation under both the U.S. and Chinese laws, the paper will discuss Guangdong's water pollution permitting scheme and applicable laws for public participation. Finally, the paper will conclude with an evaluation of the water pollution permitting system in China and discuss proposals for improving national water quality objectives.

II. CHINA'S WATER CRISIS

⁷ U.S. Census Bureau Delivers California's 2010 Census Population totals, at http://en.wikipedia.org/wiki/San_Francisco#cite_note-SFCensus2010-11, (last modified April 27, 2011); Guangzhou Population Surges Past 15 Million, at <http://www.echinacities.com/guangzhou/city-in-pulse/guangzhou-population-surges-past-15-million.html>, (March 24, 2011).



When millions of gallons of toxic water infiltrates an ecosystem and poisons enough fish to feed 70,000 people for an entire year, people become wrought with concern.⁸ In the summer of 2010, Zijin Mining, located in Shanghang city of Fujian Province, was responsible for a pollution disaster comparable to the BP oil spill. The case represents a classic example of how the forces of local protectionism work to supersede policy and the law. The permit was issued illegally; those directly affected were not given a chance to comment on the environmental assessment, which circumvented a critical EIA procedure.⁹ Adding to the egregiousness of the violation, the local EPB responsible for ensuring compliance with the law could not override the more powerful local government. The government depended upon Zijin Mining for 70% of its tax revenue, thereby swinging the balancing pendulum in favor of economic gain.¹⁰

How can the environment compete with powerful economic interests and the idea that maintaining social stability is contingent upon how well the economy performs? This is a question posed not only for China, but the U.S. and other nations as well. Capitalism has been promoted as both an economic system and an ideology.¹¹ Money talks, but capitalistic roots are being unearthed as the environment begins to scream with a raging force that is shaking the core of the earth. Chinese party officials are worried that closing factories will jeopardize economic growth and cause social unrest. For the past thirty years, social stability has been maintained by constant economic growth, but this concern must not trump maintaining a healthy ecosystem.

⁸ *Zijin Mining*, Wikipedia.org, at http://en.wikipedia.org/wiki/Zijin_Mining#July_2010_acid_incident (last modified January 10, 2011).

⁹ Environmental Impact Assessment Law (promulgated by Standing Comm. Nat'l People's Cong., Oct. 28, 2002, effective Sept. 1, 2003), art. 11, (any adverse effect on the environment must be publicly disclosed), available at <http://www.chinaenvironmentallaw.com/>.

¹⁰ Ina Pozon, *Zijin Miningspill and the quest for materiality*, The Asia Water Project: China (July 2010), at <http://www.asiawaterproject.org/more-editorial/5258/>.

¹¹ JAMES SPETH ET AL., *Global Environmental Governance*, 140, (Island Pres et al. eds., 2006).



The economic cost of environmental degradation is currently unknown, but the present rate of industrial and economic growth in China is unsustainable with rising pollution levels.

The growing threat to clean water resources is China's most severe environmental hazard. China's water woes are ever more a global issue, as exemplified by the 2005 toxic spill that went from the Songhua River in Jiling Province into the waterways of Russia. An explosion at PetroChina chemical plant released 100-ton slick of benzene into the river, causing widespread pollution and posing a dire threat to the region's water resources.¹² Initially, local officials stifled the media and tried to hide the incident from the public eye, but finally assumed responsibility when the toxic water reached Harbin.¹³ Public outcry ensued when almost 4 million people were without water for five days.¹⁴

One positive effect of severe water disasters such as those caused by Zijing Mining and PetroChina are the explosion of NGO activity and increased public awareness that ensues. Additionally, more resources are allocated to wastewater treatment. Between 2002 and 2005, treated wastewater rose from 39.9% to 45%.¹⁵ This is due, in large part, because the Five Year plans have placed a higher emphasis on environmental quality controls over the past 15 years than in previous years, where economic development took precedent over maintaining a healthy ecosystem. In its Twelfth Five-Year plan issued in 2011, Chinese officials have placed a heightened emphasis on incorporating environmental governance into plans for economic

¹² JENNIFER TURNER, *In Deep Water: Ecological Destruction of China's Water Resources*, 27 (2007).

¹³ *Id.*

¹⁴ PetroChina, Wikipedia.org, at http://en.wikipedia.org/wiki/PetroChina#Chemical_spill (last modified April 10, 2011).

¹⁵ JENNY LIEU, *China's Power in Wastewater*, 2 (2009); citing China Environmental Statistical Yearbook (2006).

development. Minister Zhou Shengxian of the MEP expressed his concern for climate change and reiterated that environmental concerns should be at the heart of economic initiatives.¹⁶

The future of China's waters depends upon how well China can administer its legislatively mandated pollution controls. When correctly implemented and monitored, permitting systems have statistically proven to dramatically reduce the amount of industrial point source pollution, thereby making water quality goals attainable. Some provinces are adapting their policies and methods for curbing industrial pollution more quickly than others. Guangdong, as an industrial giant bustling with public participation and NGO activity, is China's leading laboratory for implementing a water pollution permitting system.

III. CONTROLLING INDUSTRIAL WATER POLLUTION: CHINA'S WPPCL AND THE UNITED STATES CLEAN WATER ACT

China's Water Pollution Prevention and Control Law (WPPCL) (水污染防治法) was first passed in 1984, and has been amended three times, most recently in 2008. The State Environmental Protection Agency (SEPA) first mentioned the use of permits to control wastewater pollution in 1988.¹⁷ It was not until 2008, however, that the WPPCL incorporated substantive provisions for water pollution permitting that provide the foundation for provincial legislation.¹⁸ This same year, SEPA was elevated to Ministry status, and is now referred to as the Ministry of Environmental Protection (MEP).¹⁹

¹⁶ Chris Buckley, *China minister warns pollution, waste imperil growth*, (Feb. 29, 2011, 4:00 AM), at <http://www.reuters.com/article/2011/02/28/us-china-environment-idUSTRE71R21020110228>.

¹⁷ LI ZHIPING, *The Challenges of China's Discharge Permit System and Effective Solutions*, 24 Temp. J. Sci. tech. & Envtl. L. 375, 376 (2005).

¹⁸ Water Pollution Prevention and Control Law (WPPCL) (promulgated by the Standing Comm. Nat'l People's Cong., May 11, 1984, amended May 15, 1996, and Feb. 28, 2008, effective June 1, 2008) available at <http://www.chinaenvironmentallaw.com/wp-content/uploads/2008/03/water-pollution-prevention-and-control-law.pdf>.

¹⁹ XIN QIU ET AL., *China's Environmental Super Ministry Reform: Background, Challenges, and the Future*, 39 ENVTL. L. REP. NEWS & ANALYSIS 10152, (Feb. 2009).

In China, there is currently no national mandate for provinces to use pollution permitting to control water pollution. However, all provinces except Tibet have some kind of legislation relating to water pollution permits.²⁰ Nonetheless, it is arguable whether some of these provinces are actively effectuating permitting systems. For some provinces that are administering water permits, there is no clear indication that it is effective in minimizing water pollution.

The best way for an effective water pollution permitting regime to take root is to improve coordination between the central and provincial governments. Significant institutional constraints, however, make it difficult for the central government to oversee provincial management of water quality resources. Accordingly, China must look to the evolution of water quality controls of other nations.

The WPPCL has been modeled after the U.S. Clean Water Act (CWA). In fact, many of China's environmental regulations are the functional equivalents of U.S. environmental statutes that they are modeled after. The separation of powers inherent to the U.S. system keep the judiciary independent from the executive, and therefore courts play a different role in the U.S. than they do in China. With regards to carrying out environmental regulations, however, the U.S. Supreme Court is reluctant to impede the functioning of government agencies charged with protecting the environment, and therefore largely defers to agency decision-making.²¹ The U.S. deferential approach to decision-making by government agencies such as the Environmental Protection Agency (EPA) can be likened to the top-down system of governance in China. While the U.S. regulatory system is not without flaws, it provides a framework for how environmental legislation is and can be developed in China. Accordingly, this section will briefly canvass the

²⁰ Presentation by Jun Bi et al, *Putting the cart before the horse: A critical review of the implementation of pollution discharge permit policy*, (on file with author).

²¹ *Chrysler Corp. v. Brown*, 441 U.S. 281, 313 (1979).



U.S. model for controlling water pollution using a permitting system and segue into a discussion the Chinese system.

A. U.S. National Pollution Discharge Elimination System (NPDES) under the CWA

The greatest threat to water pollution comes from industry. Because the type of pollution affecting the pH of water varies with industry, industrial water pollution control must begin with the entity regulated.²² Industrial wastewater pollution is pervasive in both countries; the U.S. EPA estimates that 50% of the nation's water pollution is caused by industry, whereas industrial pollution in China contributes to over 70% of all emissions.²³ The EPA is the federal government's principle agency charged with the responsibility for writing, implementing, and enforcing rules governing the nation's waterways.²⁴ Because states retain jurisdiction over a vast amount of water resources, such as groundwater, it is legally cumbersome to achieve national policy objectives due state sovereignty. Despite these obstacles, the strength of the U.S. regulatory system lies with the coordination between state and federal agencies responsible for regulating water pollution.

The U.S. Office of Enforcement and Compliance is the federal agency responsible for compliance and monitoring.²⁵ This agency helps to ensure compliance with environmental regulations through an integrated management approach with the EPA. The EPA implements water pollution control programs under the CWA, the nation's pollution control strategy for point sources and nonpoint sources of water pollution. Additionally, the Act stipulates how money is to be allocated for the funding of pollution controls and codifies comprehensive

²² Nicholas Robinson et al., *Waters and Water Rights*, Mathew Bender & Co. Inc. (2009) (discussing the public trust doctrine and its broad common law applicability under New York law); Measuring the quality of water, EPA, at <http://water.epa.gov/learn/resources/measure.cfm> (scientists use pH to determine the concentration of hydrogen in water).

²³ 2006 SEPA report, *supra* note 2.

²⁴ 40 C.F.R. § 145.21.

²⁵ Compliance and enforcement, at <http://www.epa.gov/compliance/>.



legislation for how the entire regulatory scheme is managed. The EPA, functionally equivalent to the MEP, carries out provisions of the CWA.

The National Pollution Discharge Elimination System (NPDES) is one of several methods the EPA uses to control water pollution. NPDES systems are the regulatory mechanism for controlling pollution from a point source.²⁶ The EPA sets national effluent limitation guidelines for storm water and wastewater discharges into surface waters. Once national standards are set, permit writers must issue permits according to technology-based effluent limitations as specified in the CWA.²⁷ Both technology and the quality of the receiving water are taken into account when permits are written.²⁸

Private, public, state, and federal actors are all involved with monitoring and compliance. Upon approval by the EPA, state programs may be granted the authority to administer their own permitting systems.²⁹ The EPA has currently approved 46 state NPDES programs, and is responsible for administering permits for Idaho, New Mexico, New Hampshire, Massachusetts, and other autonomous regions, including Puerto Rico.³⁰ For water permits, all state programs must apply a minimal technology standard subject to EPA approval. Three distinct levels of technology are applicable: best practicable control technology currently available, best available control technology economically achievable, and best conventional pollution control technology available.³¹

The NPDES program imposes both technological and effluent limitations. If technology based standards do not meet the requirement necessary to maintain water quality, the permit

²⁶ 40 C.F.R. § 122.33; see <http://www.epa.gov/owow/watershed/wacademy/acad2000/cwa/> (discussing the evolution of CWA programs over the last decade).

²⁷ 40 C.F.R. § 122.44 (effluent limitations are promulgated under CWA § 301, new source standards under CWA § 306).

²⁸ 40 C.F.R. § 423.12.

²⁹ 40 C.F.R. § 124.2.

³⁰ State Program Status, at <http://cfpub.epa.gov/npdes/statestats.cfm> (last updated April 14, 2003 1:58 PM).

³¹ 40 C.F.R. 420.03.



writer must develop a more stringent effluent limitation.³² Once the desired functional use of the water is determined, scientists then determine the total maximum daily load (TMDL). These standards set the amount of chemicals and other harmful substances that can be safely released into a body of water on a daily basis. The analysis is done for an entire watershed or separately for each individual discharge. Both economic and technologic feasibility must be taken into account. If the standards imposed are too stringent, and may impair the industry's ability to operate with economic viability, then the EPA must weigh this cost against the benefit of the imposed regulation.³³ Because the EPA has to take into account economic factors, the NPDES program can be criticized as one that has to make concessions to competing monetary interests. Moreover, strict technological controls are not imposed. Rather, the best technology economically achievable, or best technology available to treat process water governs how permits are allocated.

Irrespective of the controversies of NPDES programs, overall compliance and monitoring is facilitated due to the dissemination of monitoring among various state and federal actors. Because the entire scheme of water quality management and control is beyond the monitoring capacity of federal agencies, states can administer their own permitting systems after approval by the EPA. Under the NPDES system, compliance and monitoring begins with an analysis of the Discharge Monitoring Reports. Compliance and monitoring efforts include on-site inspections that encompass an evaluation of self-reported discharge and monitoring reports. Inspectors verify the accuracy of information in the monitoring data, as well as the accuracy of sampling.

³² 40 CFR 122.44(d); <http://cfpub.epa.gov/npdes/generalissues/watertechnology.cfm> (effluent limitations serve as the primary mechanism in NPDES permits for controlling discharges of pollution into receiving waters).

³³ JOEL B. GOLDSTEEN, *The ABCs of Environmental Regulation* 73 (2d ed. 2003).



These reports provide continuous monitoring data from permitted facilities. Information includes characteristics of their effluent discharges and provides guidance to state and EPA regional inspectors on how and when to conduct inspections.³⁴ The state or federal agency that reviews the operations of a specific facility will review the discharge monitoring reports, interview facility personnel with knowledge of the facility, inspect the processes that generate and treat wastewater, sample wastewater discharges into waterways, review how samples are collected and analyzed by the laboratory, and follow other inspection protocols.³⁵

Depending upon the type of construction facility or industry, various NPDES permitting requirements may apply. For example, a permit will be required under the NPDES storm water program if storm water from an industrial facility runs off the property.³⁶ Industrial polluters discharging wastewater to a municipal sewer must also have a permit under the NPDES pretreatment program.³⁷ Effluent limitation guidelines apply to industrial polluters discharging processed water to a municipal sewer, whereas best management practices apply to the pretreatment program.³⁸

B. Evolution of WPPCL from 1984 to 2008

The WPPCL applies to the prevention of pollution to surface and ground water bodies such as rivers, lakes, canals, irrigation channels and reservoirs within the territory of the PRC. Unsurprisingly, the driving force behind the WPPCL was to control industrial water pollution. The law does not specify which waters are subject to regulatory protection, and therefore the

³⁴ Clean Water Act Compliance Monitoring, <http://www.epa.gov/oecaerth/monitoring/programs/cwa/index.html> (last updated March 17, 2010).

³⁵ National Pollutant Discharge Elimination System Compliance Inspection Manual, <http://www.epa.gov/oecaerth/resources/publications/monitoring/cwa/inspections/npdesinspect/npdesmanual.html> (last updated on Jan. 2, 2009).

³⁶ 40 C.F.R. 122.26.

³⁷ *Id.*; Industrial and Commercial Facilities, http://cfpub.epa.gov/npdes/home.cfm?program_id=14 (discussing permits required for wastewater discharges) (last updated Jan. 4, 2011).

³⁸ 40 C.F.R. 122.34.



burden rests with provincial governments to designate which water bodies will be within their respective purviews of pollution control legislation and enforcement.³⁹

In 1988, SEPA implemented the Temporary Measure of Water Pollutant Discharge Management.⁴⁰ These measures granted authority for local competent departments to administer the pollution permit system according to the total discharge control system similar to total maximum daily loads in the U.S.⁴¹ Although the first piece of legislation mentioning water permits passed over 20 years ago, permitting was not heavily emphasized until 1996, when the National People's Congress (NPC) adopted the Ninth Five-Year plan.⁴² This plan adopted nationwide goals for controlling major pollutants, initiated the concept of total maximum daily load (TMDL), and targeted twelve major pollutants to be controlled, including eight water pollutants.⁴³

The MEP leads national efforts, but decentralization of authority leaves power to implement and enforce the laws a matter of provincial and local governing practices.⁴⁴ Provincial and local governments designate the functional use of water body according to one of the six categories set by the national government.⁴⁵ The water quality standards are categorized by surface water, groundwater, seawater, fishery water, irrigation water, and water classified as unusable for any purpose. Discharge targets are set based on the water body's carrying capacity of a specific pollutant. If the polluter exceeds the targets, the local department may grant a

³⁹ *Id. supra* note 15, art. 15.

⁴⁰ *Id. supra* note 14.

⁴¹ DAWN WINALSKI, *Implications of the Amendments to China's Law on the Prevention and Control of Water Pollution*, 24 J. ENVTL. LAW AND LITIGATION, 181, 194 (2009).

⁴² *Id. supra* note 14.

⁴³ *Id.* at 3.

⁴⁴ *Id.* at 184, *supra* note 37.

⁴⁵ Letter from Ye Yuanbo, Information obtained from Guangzhou EPB (one file with author).



provisional license and order a reduction over time.⁴⁶ Localities distribute discharge permits based on local conditions.⁴⁷

Concurrent with the policy initiatives exemplified by the Ninth Five-Year plan, the WPPCL was also amended in 1996. This amendment brought about significant changes to water quality management. The amendments brought about the need for greater provincial coordination, for water quality was now managed based on the river basins and watersheds rather than administrative regions.⁴⁸ Moreover, national law mandated that urban sewage be centrally treated at a wastewater treatment plant prior to being discharged into a watershed.⁴⁹ Early initiatives in China, however, proved to be too ambitious given the institutional constraints of implementing environmental legislation. National planning adjusted accordingly, and the Tenth and Eleventh Five-Year plans only called for the unified control of chemical oxygen demand (COD) in water.⁵⁰

In 2000, SEPA promulgated the Implementation Rules to the WPPCL, which are a series of articles aimed at providing further guidance for how the laws are to be implemented. Article 2 of these rules provides that water quality targets must be reached within specified time limits, and the total pollution amount discharged shall not change the functional use of the water.⁵¹ This administrative regulation combined the total pollutant load control system with the pollutant discharge permit system.⁵² The only practical effect of this law was that it created a legal

⁴⁶ *Id.* at 189, *supra* note 37, citing Interim Measures on the Management of Water Pollutants Discharge Permits arts. 11, 12 (P.R.C.).

⁴⁷ *Id.* at 377, *supra* note 14.

⁴⁸ Jingjing Liu et al, *Quest for Clean Water: China's Newly Amended Water Pollution Control Law*, (Jan. 2009).

⁴⁹ *Id.* *supra* note 48.

⁵⁰ *Id.* *supra* note 3.

⁵¹ Implementing Rules on the Law on the Prevention and Control of Water Pollution, art. 2, at http://english.mep.gov.cn/Policies_Regulations/regulations/Water_Pollution_Control/200710/t20071017_111495.htm (March 3, 2000).

⁵² *Id.*



standard for maintaining a certain water quality by using pollution permits to control the total load of pollutants discharged from a point source into a body of water. In practice, water pollution permits have not been uniformly administered.

The Environmental Impact Assessment is a crucial component to water quality management in China. The EIA decides the scope of the permit, and pollution permits cannot be issued until after the assessment has been completed. The requirements for conducting the EIA continue to develop as water quality management methods adjust and change over time. Recent changes came in 2006, when SEPA issued major water pollutant load allocation guidance. Effectively, this law aggregated total allowable COD into regional watersheds, and permits were allocated according to the aggregate amount. Permit distribution of regional (basin) total indicators were based on water quality control objectives. Discharging units are now divided into three categories: (1) the existing unit, (2) the newly established units that have passed EIA inspections, and (3) new units that have not been approved. The total index is determined after the construction and renovation project has been approved in accordance with the EIA and regional pollution reduction requirements. For new projects, the index is determined by comparison with other units in the same region, or there is a compensatory transfer that works as a type of emissions trading system. In practice, new units get the index from the old unit that has been shut down due to serious environmental pollution.⁵³ Local EPB may set aside part of the index, but the reserved index shall not exceed the total amount control index of 15%.⁵⁴

⁵³ Letter from Ye Yuanbo, Information obtained from Guangzhou EPB (on file with author).

⁵⁴ *Id. supra* note 2, (Main pollutant total amount allocation guidance).



In 2008, The MEP reiterated its plan to establish national standards for the discharge of water pollutants.⁵⁵ Even though the national law provides that the NPC will establish national standards for the discharge of water pollutants, these standards have not been established.⁵⁶ This is due to various reasons such as pressure from industry and powerful agencies whose economic interests outweigh environmental concerns. Because there are no national standards, local rules become important. Although not granted explicit authority, sub-national authorities are permitted to establish their own local standards for pollutants not specified in the national standards.⁵⁷

The 2008 WPPCL provides that polluters must report and register with agents of the local EPB, who determine which facilities must install water-monitoring equipment.⁵⁸ Regional EPBs, under the authority of local governments, shall examine the amount of major pollutants discharged into water bodies by polluting enterprises within their respective jurisdictions, and shall grant permits to units whose discharge does not exceed the prescribed total control targets.⁵⁹

Regional EPBs supervise local governments and their respective implementations of national environmental legislation. However, EPBs are not as powerful as local governments, and therefore cannot effectively carry out their role as an enforcer of national laws. To address the problem of local governments circumventing national policy objectives, in 2006 MEP Vice Minister Zhang Lijun stressed the importance of developing and expanding China's six regional supervision centers.⁶⁰ These centers are funded in part by the Asian Development Bank, which

⁵⁵ *Id. supra* note 15, art. 13 (the Environmental Protection administration shall establish national standards for the discharge of water pollutants).

⁵⁶ *Id. supra* note 48.

⁵⁷ *Id.* art. 20.

⁵⁸ *Id.* art. 21.

⁵⁹ *Id.* art. 10.

⁶⁰ SCOTT MOORE, *Shifting Power in Central-Local Environmental Governance in China: The Regional Supervision Centers*, China Environment Series, 189 (Jennifer Turner et al eds., vol. 11. 2011).

sees these centers as instrumental in building “institutional mechanisms to link environmental plans with regional and local economic development policies.”⁶¹

The regional supervision centers are intended to strengthen the regulatory hand of the central government, but they are grossly understaffed and underfunded. When compared with the U.S. EPA’s ten regional offices, each staffed with more than 800 people, the adequacy of 30-40 people working at each regional center in China is doubtful.⁶² Despite insufficient funding and severe lack of human resources allocated to regional supervision, China is rapidly undergoing institutional changes with how regional centers and EPBs oversee and manage local governments. Studying and transplanting administrative regulations of other nations such as the United States will be instrumental for China in making necessary adjustments to its legal infrastructure in a timely manner. Moreover, the rule of law must be implemented in a way that is in accordance with China’s existing system of governance.

IV. COMPARATIVE ASPECTS BETWEEN THE U.S. NEPA AND CHINA’S ENVIRONMENTAL IMPACT ASSESSMENT LAW (EIA)

Growing pollution threatens stability and people will riot when leadership fails to ensure basic human needs are met. It is for this reason that public participation in environmental decision-making is necessary for stability. People should be directly involved with decisions that affect their lifestyle. The basis for comparing China’s EIA law with NEPA is to discuss ways in which the Chinese law models the U.S. law, highlight its shortcomings, and make proposals for how to strengthen participatory procedures under existing policies. China must strengthen and

⁶¹ *Id.*

⁶² *Id.*



enforce public participation through existing EIA procedures in order to develop the rule of law and give directly affected citizens a forum to voice their concerns.

A. NEPA and EIA as procedural mandates to increase government transparency

Under the National Environmental Policy Act (NEPA), all major federal actions significantly affecting the quality of the human environment must undergo an Environmental Impact Assessment.⁶³ Similarly in China, the law states that all construction projects that may adversely affect the environment must undergo an EIA.⁶⁴ Given the scope of Chinese development, however, it is not practically feasible that every construction project be accompanied by an EIA.

An important distinction is that NEPA applies to the federal government, whereas the Chinese EIA applies to all construction projects, both government and private. Under NEPA, the federal agencies must consider alternatives to the proposed action submitted by the public, but these alternatives do not necessarily change the outcome of the decision. Alternatives should be included Environmental Impact Statement (EIS).⁶⁵ Failure to do so will trigger judicial review under the Administrative Procedure Act.⁶⁶ In China, alternatives should theoretically be included, but whether the proper procedures are followed is a matter of local policy.⁶⁷

Despite the limitation of NEPA's applicability to federal agencies, many states have incorporated environmental policy statutes that operate with respect to state agencies.⁶⁸ Private

⁶³ 40 C.F.R. § 6.103.

⁶⁴ Environmental Impact Assessment Law (promulgated by Standing Comm. Nat'l People's Cong., Oct. 28, 2002, effective Sept. 1, 2003), art. 3, at <http://www.chinaenvironmentallaw.com/.../environmental-impact-assessment-law.doc>.

⁶⁵ 40 C.F.R. 6.200(b).

⁶⁶ Administrative Procedure Act §701, 5 U.S.C. § 555 (2006).

⁶⁷ WANG XIXIN. *Public Participation and its Limits*, at

<http://www.publiclaw.cn/article/Details.asp?NewsId=220&Classid=&ClassName> (an observation and evaluation on public hearings as experimented in China's administrative process)(May 28, 2003).

⁶⁸ DAVID FIRESTONE ET AL, *Environmental Law for Non-Lawyers* 51 (SoRo Press, 4th ed. 2008).

construction projects, however, become federalized when a pollution permit is required.⁶⁹

Accordingly, all pollution permits for new point source emitters are subject to the EIS provisions of NEPA. Likewise, Article 17 of China's WPPCL provides that all construction projects that directly discharge waste from a point source into a body of water "shall be subject to environmental impact assessment according to law."⁷⁰ Therefore, all enterprises must complete an environmental assessment, pursuant to the Environmental Impact Assessment (EIA) Law.⁷¹

In China, total pollution allocation is determined after an EIA for a construction project has been completed. The total pollutant load control, like TMDL limitations imposed in the U.S., is determined by specifying the maximum allowable amount of pollutants that can be discharged into a watershed before its functional capacity deteriorates. Permits are allocated among individual dischargers through a permit system. Allocation is intended to work in a three stage process: (1) the total pollutant control is designated for specific pollutants, (2) the maximum carrying capacity of the water body for specific pollutants is calculated, and (3) the total load control is allocated according to the total pollutant control plan.⁷²

Currently, measuring COD is the primary method of testing the degree of pollutants in water. Most water systems in China are characterized by a combination of organic pollutants such as BOD, COD, nutrients such as ammonium nitrate, and heavy metals such as lead, mercury, and cadmium.⁷³ The chemical oxygen demand (COD) reflects the total quantity of oxidizable elements like carbon and hydrogen from hydrocarbons, nitrogen from proteins, or

⁶⁹ *Id.* at 53.

⁷⁰ *Id. supra* note 15, art. 17.

⁷¹ *Id. supra* note 57, art. 7.

⁷² *Id. supra* note 14.

⁷³ *Id. supra* note 3.

sulfur and phosphorus from detergents.⁷⁴ The Huai River Basin is one particular watershed in China where total quantity control limits for Ammonia have been set. Other regions, however, are not currently regulating the discharge of ammonia into bodies of water.

Because local governments are responsible for setting their own water quality targets under the COD standard, compliance with the EIA is inconsistent throughout the country. Compliance is met when the legislation has been fully implemented and carried out. The various provinces have different water quality targets, different technological standards, and the institutional capacity to address environmental concerns varies throughout the country. Many areas have more resources to properly monitor water quality, carry out proper EIA procedures, and fine those who violate the law. The level of official corruption and outside influence varies depending on the region. Areas that are dependent upon certain industries as a major source of tax revenue have little incentive to enforce pollution permits. This creates an anomaly within the target responsibility system, as some local governments may feel as if they cannot meet environmental goals defined by the Five-Year plans at the high expense of foregoing valuable revenue generated from polluting industry.⁷⁵

The purpose of the Law of the People's Republic of China on the Environmental Impact Assessment is to prevent unfavorable impacts to the environment and promote the concerted development of the economy, society, and environment.⁷⁶ Third party contractors unrelated to the government conduct the EIA.⁷⁷ Once completed, the construction unit submits the EIA to the

⁷⁴ COD analysis shows water pollution levels, at <http://www.processingtalk.com/news/apo/apo181.html#ixzz170PbWEOy>.

⁷⁵ DAN GUTTMAN ET AL, *Making central-local relations work: Comparing America and China environmental governance systems*, 429 (2007).

⁷⁶ *Id. supra* note 6, art. 1.

⁷⁷ *Id. art. 19*; JESSEE MOORMAN ET AL, *Promoting and Strengthening Public Participation in China's Environmental Impact Assessment Process: Comparing China's EIA Law and U.S. NEPA*, Vt. Journal of Env't. Law, vol. 8, 301 (2007).



local EPB, who as authority to review for completeness.⁷⁸ The EIA is considered complete when it has included all elements as provided by Article 17. The report shall include the environmental impact of the proposed project, suggestions for carrying out environmental monitoring, measures for protecting the environment, and an analysis of the economic gains and losses.⁷⁹ Upon approval, the planning department can then permit the project itself. Theoretically, the EIA cannot be approved unless the project has been simultaneously designed, planned, and appropriate pollution control measures have been implemented.⁸⁰ In practice, however, the “three synchronizations” of design, construction, and pollution control are not always followed.

Permit allocation in China shall only occur after an environmental impact assessment. If a developer completely ignores the EIA requirement and builds without completing an EIA, the only penalty that a local official may require is for the developer to do a make-up assessment and possibly pay a fine. The maximum penalty for non-compliance is 200,000 Yuan, or about \$31,000 USD, which is miniscule in comparison to the cost of the project and the impact such a project has to the environment.⁸¹ Due to lax procedures and enforcement provisions, the EIA law of China should be seen as a way to encourage, rather than require compliance with environmental legislation.⁸² Therefore, a substantive procedural comparison under this law can be made to NEPA; the laws of both nations are not strictly mandatory, but implemented as a way to assess the environmental impact of construction projects.

B. Avenues for public participation through environmental assessments

⁷⁸ *Id.* Article 22.

⁷⁹ *Id.* Article 17.

⁸⁰ SHUI-YAN TANG ET AL, *Public Participation and Environmental Impact Assessment in Mainland China and Taiwan: Political Foundations of Environmental Management*, Journal of Development Studies (2005).

⁸¹ *Id. supra* note 6, art. 31.

⁸² The evolution of China’s EIA, at <http://www.csrchina.net/page-838.html>.

Despite the imperfections of environmental impact statements, both NEPA and EIA increase government transparency and provide procedural mandates that force agencies to assess the environmental impact of a construction project. They are directly relevant to pollution permitting because every project that involves a permit has already undergone an environmental assessment. Under NEPA, agencies are required to disclose information to the public, as well as provide public hearings and meetings. The public must be able to access this information and dispute the proposed action “before decisions are made and before actions are taken.”⁸³ Thus public involvement in China’s EIA process is available, but not as accessible. The public’s participatory role is granted through the EIA law. People can submit opinions directly to the reviewing agency in the event a program “may cause unfavorable environmental impacts or directly involve the environmental interests of the general public.”⁸⁴ The law makes participation an explicit right once the EIA has been completed, but appears to allow the public to submit comments in the event the contractor “fails to submit the report” to the approving authority.⁸⁵

The permitting process triggers an EIA. Therefore, public access to this information is essential in order to give citizens the tools they need to voice their concerns. One of the goals of NEPA is to provide the public with information concerning the environmental impact of government actions.⁸⁶ Public disclosure of environmental impact statements is governed by the Freedom of Information Act, and may be limited in cases where secrecy is required.⁸⁷ NEPA encourages public participation, and the APA provides avenues for judicial review if the affected

⁸³ 40 C.F.R. §1500.1 (b).

⁸⁴ *Id. supra* note 6, art. 11.

⁸⁵ *Id.* art. 12. (the law does not appear to define a public participatory role subsequent to EIA, but review subsequent to EIA should be available under this provision)

⁸⁶ *Weinberger v. Catholic Action of Hawaii*, 454 U.S. 139, (1981).

⁸⁷ *Id. supra* note 76; NEPA §102(2)(c).



public challenges an agency decision for failure to comply with the mandates of NEPA.

Likewise, the Chinese EIA provides the public with information regarding the human impact of the construction project, and provides an opportunity to attend a hearing for comment.

The most important procedural difference between the U.S. and China with respect to public participation is during the screening process.⁸⁸ In China, the government determines what type of document is required according to the size and scope of the proposed project without providing for public involvement. Under NEPA, however, public involvement is available during the screening process, which involves an environmental assessment (EA). If the EA reveals a finding of no significant impact (FONSI), then an EIS is not required.⁸⁹ This distinction highlights how top-down governance limits the availability for the affected public to be involved in the decision-making process.

Although public participation in China's EIA process is limited, it is the best way for concerned citizens to directly involve themselves with environmental regulation. Public participation is broadly defined because public participation is largely a matter of local policy. The national law, however, provides that agencies conducting the EIA should solicit public opinion prior to approval.⁹⁰ Any construction plan that may adversely impact the environment shall have an evidentiary meeting or testimony hearing.⁹¹ All hearings and publications shall be made available to the public, except in cases where secrecy is required.⁹² Transparency is an integral component to effective public participation. In May of 2008, the State Council emphasized governmental policy to be more transparent by promulgating China's first Open

⁸⁸ JESSE MORMAN ET AL., *Promoting and Strengthening Public Participation in China's Environmental Impact Assessment Process: Comparing China's EIA Law and U.S. NEPA*, 8 VT. J. ENVTL. L., 281, 302 (2006).

⁸⁹ *Id.*

⁹⁰ *Id. supra* note 6, art. 11, art. 21.

⁹¹ *Id.* art. 11.

⁹² *Id.*

Government Information Regulations (OGI), thereby creating a legal mechanism for citizens to access information from the government.⁹³

There are two kinds of EIA procedures in China. Articles 7 through 15 of the EIA law outline procedures for implementation of regional plans. The EIA of regional plans belong to technological and development zones, where permits are allocated to segments of land divided up according to industry.⁹⁴ Articles 16 through 28 outline procedures for construction projects conducting an EIA report. Permits are allocated for both technological development zones and construction projects, but the law does not clearly define how availability for public participation is different according to the type of allocation. Because technological development zones are parcels of land set aside specifically for economic development, it is less likely that the public will be able to dispute projects in these zones. Moreover, articles outlining the appraisal of the environmental impact of construction projects are much more specific and require a more detailed description of the potential impact of the proposed project.⁹⁵ Accordingly, public participation related to construction projects is more accessible than in the context of development zones.

Subsequent to review, agencies conducting the EIA submit the report to the polluting enterprise. The financial burden is on the polluter to conduct an investigation to see how the project will adversely affect the public. Since many polluters lack the financial resources to do such an investigation, the human impact often goes unknown. The law requires the polluting

⁹³ TOD KAISER ET AL., *Taking the Pulse: The One-Year Anniversary of China's Open Government Information Measures*, (Aug. 2009).

⁹⁴ *Id. supra* note 6, art. 7-15.

⁹⁵ *Id.* art. 16, art. 17.



enterprise to seek public opinion.⁹⁶ In practice, however, the polluting enterprise discloses this information at its own discretion.⁹⁷ Several provisions of the EIA law explicitly make it discretionary for the enterprise to disseminate information or conduct a thorough investigation regarding the potential environmental harm of the project.⁹⁸ Such discretion makes the entire process very opaque not only for EPB officials responsible for oversight, but the affected public.

At present, the most common offenses in China are failure to comply with the EIA, failure to pay pollution levies, operating without a permit, and violating the “Three Synchronizations” requirement, a management practice mandating that the plan, design, and construction of all projects must be done concurrent with the plan, design, and construction of an appropriate treatment facility.⁹⁹ Those affected by industrial pollution in China are vast in number, and public participation is a powerful vehicle for oversight. Although discharge permits provide a basis for collecting pollution levies and create an economic incentive to comply with regulations, the actual levy paid by a polluter is typically the result of a negotiated amount between the entity and the local EPB.¹⁰⁰

Laws in the U.S. in China are fallible. To begin with, government actions of both nations cannot be disclosed to the public when it is a matter of national secrecy. Therefore, the public only has the opportunity to comment on a limited number of projects. Additionally, neither NEPA nor EIA protect the environment from the balancing cost and benefit approach in which economic often interests outweigh the purported environmental costs. Nonetheless, these laws

⁹⁶ *Id.* art. 21, (“construction projects which may impose significant environmental impacts” must seek the opinions of relevant entities, experts, and the general public).

⁹⁷ Interview with Ma Xiaoling, EIA review, in Guangzhou, China (Dec. 29, 2010).

⁹⁸ *Id. supra* note 6, art. 5, art. 11.

⁹⁹ XUEHUA ZHANG, *China’s Environmental Administrative Enforcement System*, (May 5, 2010); “Three Synchronizations” refers to the idea that all construction projects should be designed and constructed simultaneously with an appropriate waste treatment facility

¹⁰⁰ *Id.*



have the effect of raising environmental awareness and provide an avenue for public participation in the environmental regulatory process.

V. GUANGDONG WATER POLLUTION PERMITTING SYSTEM

For more than ten years, Guangdong has consistently emulated national legislation on a provincial level. Guangzhou is the capital of Guangdong, and is the undisputed provincial economic center and industrial powerhouse. This city hosts the annual Canton Trade Fair, where business people from all over the world come to negotiate deals and buy products, most of which are manufactured in this region. As an industrial leader, water pollution in Guangzhou is pervasive, but the city has more resources than most others to implement regulations, water quality management practices, and enforce laws enacted to curb environmental degradation. Data on water quality in this province, however, indicates that the permitting system is having a beneficial effect due to the reduction in COD measurements in Guangdong. COD discharge was calculated at 1,058,000 tons in 2005 and dropped to 911,200 tons in 2009.¹⁰¹ Through public participation, continuous monitoring and oversight, and the use of self-reporting and monitoring, Guangdong is on its way to successfully implementing a comprehensive water pollution permitting system.

A. Pollution Permitting in Guangdong

1. Legislation and permitting scope

In Guangdong, the distribution of permits works in accordance with the EIA law. Guangdong EPB first issued its pollution permit management approach in 2001.¹⁰² This law only contained 17 articles. The primary focus was to provide guidance on how to manage

¹⁰¹ Guangdong Statistical Yearbook, at http://www.gdstats.gov.cn/tjnj/table/19/c19_11.htm.

¹⁰² Pollution Permit Management Approach of Guangdong Province (promulgated by Guangdong Environmental Protection Bureau, effective 2001).

issuance of permits and improve coordination between provincial and local governments. These provisions laid the administrative framework for the 2009 law. The 2009 Pollution Permit Regulations of Guangdong make it illegal to discharge pollution unless a permit has properly been obtained according to the application procedures specified in Chapter IV of the Guangdong Implementation rules.¹⁰³ The Environmental Protection Administration Department (EPB) approves the application permits.¹⁰⁴ Although the 2009 law is more detailed, a change that has been criticized is that the new rules established temporary permits for industrial polluters that could not comply with the permitting discharge limitation upon review of the EIA. Consequently, temporary permits are issued more freely because compliance is not a requirement.¹⁰⁵ Units with a temporary discharge permit must attain compliance within the time frame of their permits.¹⁰⁶ Although the 2009 law appears to place a time limit on dischargers whose permits exceed the TMDL amount, the temporary permits create a new monitoring hurdle for the presiding EPB. Consequently, temporary permits exacerbate weaknesses within the existing system and effectively make compliance optional.

Under the 2009 rules, all environmental protection departments shall provide professional guidance to lower level agencies.¹⁰⁷ Guangzhou has twelve districts, some of which have their own EPB. Coordination between the various EPBs is incredibly challenging given the financial constraints and severe underinvestment in human resources. The law provides that each

¹⁰³ Pollution Permit Implementation Rules of Guangdong Province (promulgated by Guangdong Environmental Protection Bureau, effective 2009) art. 2.

¹⁰⁴ *Id.* art. 5.

¹⁰⁵ E-mail from Cao Mingde, Professor of Civil Commercial and Economic Law School, China University of Political Science and Law (March 13, 2011) (on file with author).

¹⁰⁶ *Id. supra* note 97, art. 27.

¹⁰⁷ *Id.* art. 6.



management authority shall work in conjunction with one another, and coordinate efforts for permit implementation.¹⁰⁸ All EIA documents are to be approved by the EPB.¹⁰⁹

The concept of the “three simultaneity system” is realized through the EIA process. For all projects, the design, construction, and operation must be built in conjunction with an appropriate treatment facility, subject to the approval of the presiding EPB.¹¹⁰ If the project is done in accordance with the three-simultaneity concept, discharge permits will be issued. Despite this requirement, not all projects are built in conjunction with an appropriate treatment facility. Yet, statistical data indicates that the EIA procedural component has been useful, even though it did not initially provide an avenue for public participation.¹¹¹

Prior to EIA approval, all construction projects must be declared and registered.¹¹² For polluters who cannot meet the initial discharge standards, they will pay an additional fine, and be issued a temporary permit.¹¹³ Such polluters will be given an abatement deadline, given at the discretion of the inspecting official. For applicants who have not met the requisite standard, a temporary permit may be issued and the polluter may pay a discharge fee according to the discharge license requirement.¹¹⁴ Article 2 provides the scope of who is regulated under the permitting system, but not every point-source discharger has a permit.¹¹⁵ Due to resource limitations, EPBs focus on the most heavily polluting industries. Thus, permitting requirements

¹⁰⁸ *Id.* art. 7.

¹⁰⁹ *Id.* art. 8(b).

¹¹⁰ *Id. supra* note 73, at 8.

¹¹¹ *Id.* (For example, development projects have increased their pollution-control investments from 5.5 billion Yuan in 1992 to 26 billion Yuan in 2000).

¹¹² *Id. supra* note 97, art. 2.

¹¹³ *Id.* art. 27.

¹¹⁴ *Id. supra* note 97, art. 13, 27.

¹¹⁵ *Id. supra* note 97, art. 2(b)(all industrial point source dischargers of medical waste and heavy metals, low-level radioactive substances, pathogens and other harmful substances).

do not include certain types of small businesses.¹¹⁶ This discrepancy occurs all across China.

For instance, of the 1060 catering enterprises inspected in Changsha in 2010, 701 of them never even applied for a discharge permit.¹¹⁷

Significant progress has been made since the inception of Guangdong's initial regulation for implementing a permitting system. To begin with, better technology and more accurate scientific data makes it easier for inspectors to ensure that polluters are passing inspections, and EPB authorities who issue the inspections shall be held accountable to ensure that such standards are met.¹¹⁸ Although administrative officials should be held accountable for a dereliction of duty to ensure the proper allocation of permits, other provisions make certain duties discretionary.¹¹⁹ If an inspector is unsure whether an existing unit has the appropriate capacity to treat sewage, the inspector may require experts to conduct a feasibility study.¹²⁰ For those facilities that cannot meet the treatment standards, they shall be issued permits for lesser periods of time.¹²¹

Oversight and enforcement are the main weaknesses in the permitting scheme of Guangdong and other provinces. The Guangdong law attempts to ameliorate the enforcement problem by issuing permits of different lengths, depending upon the stage of development. For projects in their initial stages of development, permits shall be effective for period not more than three months. Upon approval, the permit may be extended to no more than 1 year. Other permits are only valid for 6 months when it is necessary to undergo further inspection.¹²²

¹¹⁶ Thousands of restaurants in Changsha are without sewage permits, at http://shui.shejis.com/zxzx/hyxw/201009/article_22904.html (Sept. 10, 2010).

¹¹⁷ *Id.*

¹¹⁸ *Id. supra* note 97, art. 39 (“A waste discharge permit shall be revoked if the administrative organ abuses his power.”)

¹¹⁹ *Id.* art. 5 (“EPB may delegate the town of Street Environmental Protection Agency to fulfill its responsibilities.”)

¹²⁰ *Id.* art. 18.

¹²¹ *Id.* art. 27.

¹²² *Id.*



Assuming the permit is distributed without the issue of abatement deadlines, the law provides that discharge permits shall be valid for five years, upon which time an application for permit renewal must be completed, approved, and the permit re-distributed. The procedures for redistribution of permits are unclear, but the public has the opportunity to comment on the rulemaking governing this aspect of permit allocation once it develops in future legislation.¹²³

2. Public Participation

Administrative rules and regulations governing public participation are formulated by local government agencies.¹²⁴ Relevant government departments, experts in the field, and representatives of affected groups are the only ones allowed at a hearing.¹²⁵ Public participation in the administration of governing rules is not a foreign concept in China, and the underpinnings of civic engagement are aligned with socialist principles.¹²⁶ Directly affected individuals have the greatest incentive to ensure entities are in compliance with their discharge permits, and can serve as an additional vehicle for monitoring and compliance. The provincial government has emphasized public participation, demonstrated by Guangdong leading China with public legislative hearings.¹²⁷ In fact, the Guangdong Provincial People's Congress held the first congressional legislative hearing ever conducted in post-cultural revolution China.¹²⁸

Different forms of public participation include seeking input from relevant government agencies and organizations, advice from scholars who are familiar with the topic, and site visits

¹²³ Guangzhou Municipal Measures on Public Participation in Formulating Rules (adopted by the Guangzhou Municipal Government Standing Committee on June 27, 2006, effective Jan. 1, 2007) art. 10.

¹²⁴ *Id. supra* note 60. Wang, Xixin.

¹²⁵ *Id. supra* note 118, art. 11.

¹²⁶ *Id. supra* note 5 at 462.

¹²⁷ JAMIE P. HORSLEY, *Public Participation in the People's Republic: Developing a More Participatory Governance Model in China* 5 (2009).

¹²⁸ *Id.* at 5.



to speak with affected persons.¹²⁹ The municipal government is responsible for creating channels for public participation, such as soliciting opinions by disclosing information to the public and conducting workshops.¹³⁰ Guangzhou municipal government Standing Committee drafted its rules on public participation in 2006.

Article 21 of the national EIA law and Guangzhou Municipal Government procedures for public participation are intertwined simply because local procedures govern how effectively national policy is carried out.¹³¹ Under this provision, any construction project that might impose significant environmental impacts must seek the opinions of relevant entities, experts, and the general public. The national law, however, is ambiguous and therefore leaves a large amount of discretion with local governments to implement procedures. Hearings in Guangzhou are a very important aspect to public participation in the decision making process. Public hearings refer to the procedure where rule-drafting departments organize representatives of the public to listen to adjudications.¹³² According to the public hearing provision of the EIA, individuals who have a direct interest, or who are represented by an appropriate organization, may request a hearing.¹³³

Subsequent to the environmental assessment, agencies conducting the EIA submit their report to the polluting enterprise. The polluter has the financial burden to conduct an investigation to see how the project will adversely affect the public.¹³⁴ Since many polluters lack the financial resources to do such an investigation, the ecological impact often goes unknown. Moreover, the polluting enterprises often choose, without consequence, not to publicly disclose

¹²⁹ *Id.*

¹³⁰ *Id. supra* note 118, art. 12, art. 18.

¹³¹ *Id.* art. 21.

¹³² *Id.*

¹³³ *Id. supra* note 6, art. 11.

¹³⁴ *Id. supra* note 91.

the EIA, in fear of losing face that will lower its stock price. In the event a polluting enterprise is discharging illegally, affected individuals still have avenues through China's tort law procedures or by submitting a complaint. Because judicial enforcement is unreliable, citizen complaints are the most commonly used channel for citizens to express their grievances.¹³⁵

B. Evaluation

Strengthening the rule of law, while increasing transparency through vehicles such as the Internet, has contributed to an increase in citizen involvement. The Internet and online voting are increasingly popular ways to disseminate information to a broad range of people. In fact, total complaints in China rose 620% from 111,359 in 1001 to 687,409 in 2006.¹³⁶ Despite an increase in participation from the affected public, the water pollution permitting system local industry often pollutes illegally. Currently, certain types of small businesses escape permitting requirements.¹³⁷ The restaurant industry, for example, is not legally considered to be part of a "construction project" and thereby circumvents the EIA process and public participation altogether. This exemplifies a hole in the system, particularly because total accumulation of pollutants from small entities often far exceeds the level of a large enterprise.

One of the reasons small enterprises are not under the purview of the EIA requirement is due to limited resources. Overseeing thousands of polluting industries is impossible when sub-national EPBs have about 180,000 employees nationwide.¹³⁸ Local governments are the primary force determining whether EPBs within their municipality will be able to protect the environment. Localities finance their respective EPBs and are also responsible for promoting

¹³⁵ *Id. supra* note 93.

¹³⁶ BENJAMIN VAN ROOIJ, *Organization and Procedure in Environmental Law Enforcement: Sichuan in Comparative Perspective*, 17 *China Information* 36 (2003)(a comparative look at enforcement capabilities between Sichuan and other provinces in Eastern China).

¹³⁷ *Id. supra* note 111 (65% of Changsha catering enterprises inspected in 2010 did not have a pollution permit).

¹³⁸ ADAM MOSER ET AL., *Environmental Law – China* (discussing environmental administrative and government framework)(Feb. 2011).



EPB officials.¹³⁹ Therefore, the local government's commitment level and overall attitude toward environmental protection will affect the EPB and overall success of environmental regulation.

The first environmental civil enforcement case in Guangdong, Guangzhou Municipality v. Zhongming Chen, highlights the enforcement challenges of EPBs. In this case, wastewater from the company was discharging directly into the Shi Liu Gang River. Zhongming Chen had no permit, no corresponding treatment facility, and the public's complaints were not taken into account. The EPB issued an administrative penalty, but this enforcement measure never made an impact. Therefore, the Haizhou Procuratorate brought a civil suit on behalf of the public interest. The court ordered an injunction to stop pollution, and the company had to pay 117,289 RMB (about \$18,000) to clean the river. This case rose issues related to supervision of supervisors and NGO involvement. The Procuratorate saw this as a good opportunity to enforce the law because the violation was so egregious and public outcry was imminent. The concept inherent to the separation of functions between the procuratorates and NGOs, however, makes procuratorates reluctant to resolve these types of cases because doing so may impede the function of NGOs.¹⁴⁰

Enforcement, monitoring, and oversight are continuous themes to China's greatest challenge to imposing environmental regulations. Economics and the environment are inextricably intertwined. Increased environmental health is dependent upon a growing global consciousness toward attaining harmony with nature, and Chinese policy has emphasized this ideology. In fact, Guangdong is currently promoting an ideology aimed at shaping the way

¹³⁹ *Id.*

¹⁴⁰ Symposium, *China's Environmental Governance: Global Challenges and Comparative Solutions*, VT. J. ENVTL. L., (March 2011).

people associate environmental health with happiness.¹⁴¹ Ideology campaigns can be seen as a way to address the interplay between implementation barriers and human behavior. Ultimately, this policy reflects an awareness that a shift must take place in the way individuals, corporations, and governments associate with wealth and the environment.

VI. ANALYSIS

Two of the most significant challenges to water regulation in China are enforcement and oversight. Other barriers to implementation include lack of scientific standards, lack of transparency in government decision-making, and limited opportunities for public involvement. There can be no question that the central government has enough power to enforce national policy objectives, but it must be accompanied with strict political accountability. Local officials engaged in corrupt practices must be held accountable for their transgressions against national environmental policies aimed at protecting the welfare of the people.

Perhaps the greatest barrier to implementation can be explained by the Chinese saying: “The Mountains are High, and the Emperor is Far Away.” Local practices are often shielded from the eyes of the Central government, and therefore enforcement of national policy objectives becomes diluted when local protectionism takes over. Although local EPBs have the authority of the Central government behind them, they remain subordinate to local governmental authority. EPBs depend on local governments to finance their operations, and therefore cannot make decisions that would otherwise contravene local policy that heavily emphasizes economic growth.¹⁴²

¹⁴¹ Discussing China’s new focus on promoting Gross National Happiness (GNP) and Guangdong’s efforts to promote this ideology, at <http://www.chinadialogue.net/article/show/single/en/4116>.

¹⁴² *Id. supra* note 53, 192.



One organ of government and one agency of that government cannot effectively address the multitude of components in a permitting scheme. Monitoring water quality, for example, involves the use of sophisticated technology by trained technicians, engineers, and scientists. The kind of oversight necessary for continuously monitoring water quality, regulating polluters, calculating a watershed's carrying capacity for pollutants, and administering permits involves coordination among several layers of government, public, and private actors. Making determinations such as who must install water monitoring equipment, which water to test, how to allocate resources, are all a highly skilled and technical processes, and should therefore be done specialized agencies that are directly accountable to Central authorities.

Due to the severe financial and institutional constraints, involving the public in both the decision-making and monitoring processes is one way to encourage compliance and ensure that violators of the law are punished accordingly. China's EIA law does not provide the public with an opportunity for judicial review of government actions once the action has been completed. To begin with, the courts are not equipped with the requisite skills and expertise to assess the quality of government agencies charged with making environmental decisions. Moreover, China's government is intolerant to criticism, and more public participation may subject the government to questioning by its people. Legal norms cannot be viewed in isolation from a nation's culture. Although the government is averse to having its flaws exposed in courts, it can build upon the harmony that already exists within the culture and promote an ideology of environmentalism.

Public participation is a sensitive, yet incredibly important issue. Effective public participation must therefore be aligned with government policy, and not run the risk of public outcry for irresponsible decision-making on behalf of the government. This particular type of bottom-up public participation strategy was successfully implemented in 2000 Fuyang city in



Zhejiang Province. There, the local government set up a cash-reward informant program in which professional informants served as whistle-blowers on those violating environmental regulations.¹⁴³ Both Fuyong and Guangzhou exemplify how Chinese policy and law have emphasized public participation as a crucial aspect of environmental governance. Cooperation between public, private, and governmental actors promotes efficiency as well as disseminates environmental protection powers into more hands.

Market-based mechanisms such as effluent trading can be also be used in the water pollution permitting context. Creating an economic incentive for pollution abatement may lower costs, encourage pollution reduction, and accelerate compliance to attain water quality goals.¹⁴⁴ Another advantage to this approach is compliance flexibility. If a unit cannot reduce pollution, it can secure additional allowances by purchasing from either permit writers or from those whose costs of abatement are lower and therefore do not maximize the total amount under their permits.¹⁴⁵ Finally, this model encourages technological innovation. When better pollution treatment technology is available, a polluter is able to reduce pollution at a lower cost. By polluting below the maximum allowable discharge, polluters will be able to sell the remaining discharge permits to those who have a higher cost of abatement. Creating a market for emissions trading is effective because it creates an economic incentive to reduce the total discharge of pollutants.

The rule of law, however, must have greater force before an effective cap and trade system can be implemented. Legal mechanisms must be strengthened to achieve fairness,

¹⁴³ ZHANG XUEHUA, *Green Bounty Hunters: Engaging Chinese Citizens in Local Environmental Enforcement*, China Environment Series, 137 (Jennifer Turner et al eds., vol. 11. 2011).

¹⁴⁴ KURT STEPHENSON ET AL., *Toward an effective Watershed-based effluent allowance trading system: Identifying the statutory and regulatory barriers to implementation*, 5 *Envtl. Law* 775, (June 1999).

¹⁴⁵ *Id.*



impartiality, and transparency.¹⁴⁶ It must be done in a way that does not undermine government authority, but rather bolsters the credibility of the government for adhering to and enforcing the laws it created. Accordingly, there must be a fine line drawn between public participation that could undermine the legitimacy of government decision-making and participation that will help government agencies and local authorities make better decisions and help with enforcement. Because public participation is controversial, however, a more appropriate approach to environmental regulation may be to emphasize and expand upon existing advantages inherent to China's top-down governance.

VII. CONCLUSION

Under the doctrine of sovereign immunity, the government “determines the terms and conditions on which it can be sued.”¹⁴⁷ This doctrine is the condition that avoids conflicts of interest between those who make the law, enforce the law, and adjudicate the law.¹⁴⁸ Because of the separation of powers inherent to the U.S. system, it cannot adequately be analogized to the top-down governmental approach carried out in China. Nonetheless, the U.S. Supreme Court has taken a deferential stance toward agency decision-making, a policy that parallels the obeisance of Chinese governance.¹⁴⁹ The role of the court, therefore, is to ensure government agencies are carrying out their statutorily defined functions and not acting arbitrarily or capriciously.

The U.S. Administrative Procedure Act (APA) defines the terms under which government agencies can be sued. The principles inherent to the Act apply similarly in the U.S.

¹⁴⁶ *Id. supra* note 60.

¹⁴⁷ WILLIAM F. FUNK ET AL., *Administrative Procedure and Practice* 518 (Thomson Reuters, 4th ed. 2010).

¹⁴⁸ *Id.* at 518.

¹⁴⁹ See generally *Heckler v. Chaney*, 70 U.S. 821, 834 (1985) (“The agency is far better equipped than the courts to deal with the many variables involved in the proper ordering of its priorities.”).



as do the policies of the Chinese government. The purpose of the APA, in addition to creating the right to sue government agencies for failure to comply with the law, “is to protect agencies from undue judicial interference with their lawful discretion, and to avoid judicial entanglement in abstract policy disagreements which courts lack both expertise and information to resolve.”¹⁵⁰ For this reason, the U.S. Supreme Court has expressed reluctance to inquire into the minds of administrative officials charged with carrying out agency policies.¹⁵¹

Much deference is given to agency decision-makers in the U.S. in order to effectuate national policy objectives; namely, environmental goals. Such principles are resembled in China’s top-down approach to governance. The agency deference model can be applied in China, particularly due to the fledgling nature of China’s judiciary. Courts in China are even less equipped to handle disputes arising from agency action than are the courts in the U.S. Moreover, adjudicating claims against government agencies is contrary to Chinese policy, and may undermine the legitimacy of the ruling authority. Historically, Chinese administrative law has been used to enhance governmental efficiency. Effective central, provincial, and local government coordination, however, continues to pose a challenge. Therefore, the best way to effectuate national policy objectives in China is to improve and develop administrative agencies that have the necessary resources, capacity, and expertise to manage environmental quality.

While the Central government of China has authority over all provinces and can impose national policy, local governments can easily supplant national legislation in order to promote local interests. Local protectionism became more pervasive after the Cultural Revolution due to

¹⁵⁰ Norton v. Southern Utah Wilderness Alliance, 542 U.S. 55, 56 (2004).

¹⁵¹ United States v. Morgan, 313 U.S. 409, 422 (“Inquiry into the mental processes of administrative decisionmakers is usually to be avoided.”)(1941).



rapid economic reforms that took place.¹⁵² When Deng Xiaoping took power in 1978, he urged the necessity for legal reform while promoting a new economic model based on deregulation and autonomy to market forces.¹⁵³ As a result, local governments became the sole proprietors for implementing their own regulations and policies to promote economic development. Such decentralization led to fragmentation and gave rise to local protectionism. Accordingly, one of the greatest challenges to effectively implementing environmental legislation is enforcement and oversight of national legislation. Although the obstacles to implementing national policy initiatives are different, the U.S. faces similar challenges to incorporating national environmental policy objectives due to political dissonance across the country. Therefore, China's top-down model of government may be better suited to handling the imminent threat posed by environmental degradation simply because policy can be implanted more swiftly.

In China, notions of filial piety and respect for one's parents, teachers, and leaders are highly regarded values that have been at the underpinnings of Chinese culture for thousands of years.¹⁵⁴ Accordingly, the notion of the general public directly challenging the decisions of the ruling authority is one that could be seen as undermining governmental legitimacy. Moreover, research shows that Chinese and other Asian cultures frown upon meddling with state affairs.¹⁵⁵ In the realm of environmental regulation, however, it is necessary for the public to be directly involved with decisions that affect the environment. To begin with, financial and institutional resources to address environmental concerns are insufficient. Additionally, the affected public

¹⁵² XIXING WANG, *Administrative Procedure Reforms in China's Rule of Law Context*, 12 Colum. J. Asian L. 251 (1998).

¹⁵³ *Id.*

¹⁵⁴ A Selected Collection of the Analects 85 ("Confucious taught his disciples four disciplines: classics, social conduct, loyalty to superiors and faithfulness to friends.") (Sinolingua Publications 2006).

¹⁵⁵ SUSAN MARTENS, *Public Participation with Chinese Characteristics: Citizen Consumers in China's Environmental Management*, 15 *Envtl. Politics* 2, 211-230, 212 (April 2008)(In a cultural study Lucian Pye (1985) argues that most Asians regard the political process as a competition between collective values on one hand and the selfish desires of special interests on the other.).



has a substantial incentive to ensure the quality of their immediate surroundings, and can serve as whistle blowers to unlawful construction projects. Today's environmental crisis poses a massive challenge for the Chinese government, and effective regulation can only come about through increased transparency and public participation. The policies underlining the WPPCL have been carried out on a provincial level, but water pollution continues to increase and noncompliance with water laws is pervasive.

Most water pollution in China comes from industry, and Americans are a large consumer of goods manufactured in China. Americans are among the greatest consumers of energy per capita in the world, and yet we waive our banners of environmentalism and expect others to follow suit. Now, clean water resources are at an even greater threat as a result of growing energy demand, a demand that creates an economic incentive to follow the "drill baby drill" rhetoric of political officials here in the U.S., officials that disregard their civic and social duty to promote policies for the public welfare.

Values inherent to a capitalistic society are at odds with achieving environmental goals. Industry has historically been seen as a good thing; it creates jobs, brings about economic growth, and promotes development. The proliferation of industry, however, keeps us blind by supporting materialistic desires, which only serve as a way for people to identify themselves through their possessions rather than through substantive personality characteristics such as integrity. Despite the evidence of a global environmental crisis, the economic interests of a powerful elite are winning over the marginalized individuals whose voices are silenced in poverty. Those most adversely affected by pollution are the poor, powerless, peripheral masses who must suffer at the hands of industry. Individual consumption, greed, and lust for accumulation of material goods is polluting the earth's waters, perverting global air, and bringing



destruction. The environment can no longer come second to economic growth. Leaders must hold themselves to a higher standard, individual behavior must change, and we humans must fully realize our interconnectedness with nature.

WHEN VIRTUE IS LOST, BENEVOLENCE APPEARS, WHEN BENEVOLENCE IS LOST RIGHT CONDUCT APPEARS, WHEN
RIGHT CONDUCT IS LOST, EXPEDIENCY APPEARS.

EXPEDIENCY IS THE MERE SHADOW OF RIGHT AND TRUTH; IT IS THE BEGINNING OF DISORDER

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