

The Nature of Indian Country and Barriers to Pollution Prevention

I have been asked to discuss pollution prevention on Indian Lands with emphasis on possible barriers to successful implementation of strategies. I have spent the last few years surveying the facilities on the Reservations in Idaho, Oregon and Washington and may be able to provide some insights on the territory including the types of businesses, the nature of the society and impediments.

Survey

The main purpose of these surveys is to 1) identify and document facilities, 2) verify they are within the confines of the Reservation and, 3) determine which environmental programs are applicable.

Each facility was visited to obtain current data such as addresses, ownership and location for each facility located therein and to determine the environmental programs that applied to each. This included an inspection like “walk around” of the property. A portable GPS instrument was used to determine the latitude and longitude of each and EPA generated maps verified their location on the Reservation.

There are, often, several definitions of the Reservation boundary. For example, the Bureau of Indian Affairs maintains a legal definition which may be different than that used by the Bureau of Land Management and these may be different than the original Treaty or Executive Order that established Reservation. Also, the U.S. Congress, from time to time, has changed many boundaries. Finally, there are disputed lands. For the purposes of this work, the BIA definition is used.

In some instances, facility personnel were surprised that they were within the boundaries of the Reservation.

This was not an enforcement effort. Potential compliance problems were noted, photographed and addressed during the survey under compliance assistance. Generally, most of the “problems” identified were “one time only” fixes.

I inventoried over 1500 facilities on 39 reservations for the following programs:

- Ia - General Air**
- Ib - Asbestos**
- Ic - CFCs**
- Id - 112(r)**
- Ie - Title V AOP**
- IIa - NPDES**
- IIb - CAFO**
- IIc- Stormwater**
- IId - Wetlands**
- IIIa - Drinking Water**

IIIb - UIC
IV - OPA
Va - Core TSCA
Vb - PCBs
VIa - EPCRA
VIb - TRI
VII - FIFRA
VIII - Superfund
IXa - Hazardous Waste
IXb - Solid Waste
IXc - Used Oil
IXd - UST

For discussion purposes, these are grouped into four categories, Air Program, Water Program, Toxic Chemicals and RCRA.

Air Program

For the purposes of this assessment, air program issues were divided into five sub-programs including General Air Program, Asbestos, CFCs, 112(r) and Title V permits. Facilities, then, can have multiple air program applicability. For example, a hatchery may have a sufficiently large refrigeration unit to qualify for the CFC program and be old enough to have significant amounts of asbestos in place as well as discharging to waters of the United States.

There were a total of 1087 air program issues identified. Of these 122 were General Air Program issues including such things as burning waste at municipal waste sites (dumps) that use open burning as a means of volume reduction (6), facilities normally associated with air emissions such as cement plants (6), sand and gravel operations, (44), grain elevators (39), one Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAPS) issue and 34 New Source Performance Standards (NSPS) issues. These include Subpart Cc (3), Subpart D, Da, Db, Dc (5), Subpart DD (7), Subpart I (1), Subpart JJJ (1), Subpart K, Ka, Kb (6), Dry Cleaners (1), Subpart O (3), Subpart OOO (5), Subpart WWW (1), and Subpart X (1)

Asbestos were reported in 20 facilities including 8 schools.

There are 103 facilities with sufficiently large refrigeration units that need evaluation as to their CFC program applicability. At most of these facilities, CFC servicing is done by EPA certified personnel. There were four, however, where CFC work is being done with individuals without certification.

Seven facilities use Chlorine gas for disinfection; however, none had sufficient quantities to require a 112(r) Risk Management Plan.

There were six facilities that are large enough to be Title V sources. These are all saw

mills.

Water Program

The water program is subdivided into NPDES permits, CAFOs, stormwater, wetlands, drinking water, UIC and OPA.

There were 118 dischargers identified with 25 having NPDES permits and another 28 that may need permits. There were 39 wastewater treatment facilities of which 7 have NPDES permits.

There were 46 animal feeding operations of which 16 have NPDES permits. Some of these do not raise enough animals to qualify as a CAFO.

There were 44 facilities that may need a stormwater permit and 4 facilities may have wetland issues. The only effort made pertaining to drinking water was to identify those facilities on wells (44) versus a municipal water system. 96 facilities may be UIC sources including 37 with floor drains to the soil, 16 with septic tanks and 6 with both.

160 facilities had above ground fuel storage tanks ranging from 27 gallons to 195, 250 gallons with a geometric mean of 1,100 gallons. About half had containment which in most cases was sufficient in volume.

Toxic Chemicals

Three leaking transformers were observed. 41 facilities were identified with possible EPCRA applicability and 11 facilities either store FIFRA chemicals, apply them, or both. In addition, some counties have weed control districts that have agreements with the tribes to apply chemicals on the reservations. They are located off the reservations and were not evaluated in this study.

RCRA

The RCRA program is subdivided into Solid Waste, Hazardous Waste, Used Oil and UST.

There are 42 facilities with solid waste issues. This includes six dumps with transfer stations with burning of combustibles as a volume reduction method, five transfer stations, four closed landfills, three Petroleum Contaminated Soil (PCS) land farms, eleven junk or scrap yards with junk autos, tires, refrigerators, and/or other white goods. In one location there was an accumulation of nearly 100 tons of hydrated lime.

158 facilities had hazardous waste issues ranging from 132 used batteries, 10 drums of used antifreeze, 200 gallons of old paint, 5 drums of waste solvent and spent hydraulic fluids. In addition, there were 247 drums of unknown contents, 16 of which were leaking and many were bulging. There were 38 parts washers in operation. The quantities of

hazardous waste being generated were well below those needed to qualify these facilities as small quantity generators.

Many facilities accumulate used oil in tanks, drums or small containers. There were 20 facilities with at least one used oil tank with tanks ranging in size from 93 gallons to 4698 gallons with geometric mean of 350 gallons. 14 of these tanks (70%) were unlabeled or labeled incorrectly. There were a total of 239 drums of used oil with 76 (32%) unlabeled. In addition, there were 555 gallons of used oil in miscellaneous containers, with 450 (81%) being unlabeled. 20 facilities burn used oil

103 facilities were identified as either having one or more UST or there is reason to believe same. 21 of these are listed on the UST data base but operating status has changed. Six of these are listed as being Temporarily Out of Use and 15 are listed as being Permanently Out of Use. One is listed as Currently in Use but the facility is closed.

There were another 16 operating USTs that are not on the UST data base plus 30 more that need further investigation. Of the later, six may be exempt as they contain heating oil or other exempt liquid, 9 have USTs that probably ought to be added to the data base and 15 are either out of business or the building is gone but there is evidence of USTs being there.

Barriers

Successful Pollution Prevention in Indian Country requires an understanding of the territory including the 1) differing views of the environment, 2) Sovereignty issues and cultural differences, and 3) social and economic realities.

There are fundamental differences between the Tribes and the States in how they view EPA and environmental issues. Knowing and appreciating these differences may make the difference between success and less success in Indian Country. There are also important legal differences between Tribes that are on Reservations and those that are not, especially in the areas of consultation and jurisdictions.

States have relinquished part of their sovereignty with the passage of Federal environmental statutes such as the Clean Air Act (CAA), the Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), etc. Consequently, there is an acknowledgement that the Federal Government has a role and authority over state lands. Further, state governments have acknowledged, through the statutes and from historical tradition, that a significant part of the resources needed to enforce environmental regulations is to be provided by themselves with EPA providing national direction and some funding, as needed, to “jump start” new initiatives. Further, the dictates and priorities for the states originate from these statutes. Finally, the relationship between EPA and the states has been evolving for 35 years.

Tribes do not see themselves as having relinquished any sovereignty other than that specified by Treaties or other agreements. They do acknowledge the Federal

Government's power over tribal lands and expect its Trust Responsibilities to be fulfilled, including protecting and maintaining the environment and natural resources.

Historically, when EPA deals with a state, there are sufficient resources provided by the states and, typically, there is sufficient staff to allow departmentalization of areas being addressed. For example, in the air program, a typical state would have scores of air employees and most of them would be specialized in some manner. Consequently, a selective degree of interaction between a state employee and their counterpart at EPA can occur. Also, one can expect these "specialist" to be highly trained and knowledgeable of the issues at hand.

At the time of passage of environmental legislation, the states already had legal authorities for environmental protection, staff in place, political will to address the problems and a history of success.

Only the most sophisticated Tribes have more than a very few such employees and these deal with myriad issues such as natural resources, safety, or some very specific duty specified by a grant. Usually, environmental issues are part of a single person's role and this person's knowledge and skills are general in scope.

Another important distinction between Tribes and States is the degree of confidentiality desired by each. State agencies and EPA, for the most part, operate on a "fish bowl" basis. Everything (except for enforcement confidential material) is easily obtained by a Freedom of Information Act request, or, in most cases, simply by asking for it.

Tribes, in contrast, are much more guarded of information pertaining to the Tribe and, often, approval of the Tribal Council is needed prior to its release. Many of Tribes I dealt with were concerned about how the information I was collecting would be used and who would have access to it.

Most Reservations are made up of Trust and Fee land. Trust land is those parcels of land that are held by the United States government for the Tribe. Without going into the details of the Supreme Court decisions on the status of land covered by Treaties, suffice to say, that for operational purposes think of Trust land as being under the jurisdiction of the Tribe.

Fee land represents those parcels that, at one time or another, were sold to individuals other than tribal members for homesteading. Consequently, on most Reservations, some land is held for the Tribe and some is owned by non-tribal members. Many reservations are virtual "checkerboards" of ownership distribution. Incidentally, it should be mentioned that with every Supreme Court decision, the "rules" change and new challenges are created.

On the reservations there are three classes of business "ownership", Tribal Owned, Tribal Member Owned and Non-Tribal. In my study, 38% of the facilities were Tribally Owned, 55% were Non-Tribal Owned and 7% were Tribal member owned. Tribal

Owned endeavors will require Tribal Council decisions (and possibly Bureau of Internal Affairs (BIA) approval) and Non-Tribal operations can be addressed directly to the property owner. It is the middle category that can be problematic depending on who the tribal member is. Also, any partnerships that include at least one tribal member ought to be considered in this category.

Now, this is where it gets complicated.

The Tribe has no jurisdiction on Fee land and neither do the States and neither does EPA unless there are specific Federal laws that apply. For example, until very recently, the only air pollution rules that applied were NSPS and NESHAPS, both of which only apply to a very few facilities on Indian lands, and a few general rules such as Stratospheric Ozone Protection.

Consequently, in any effort, one needs to determine the status, “fee” or “trust”.

For environmental purposes, a Reservation consists of a boundary in which the state and counties have no jurisdiction unless there has been some agreement reached by the parties involved. Consequently, many of the services and oversight provided by them (such as building / construction permits, sewer system inspections, solid waste management, nuisance laws, and recycle programs) and many of the rules and regulations that we have come to expect and rely on to enhance our lives and protect our homes and property are State or County ordinances and laws and are not applicable on Reservations.

In my work, I interviewed a surprisingly large number of people who “had never seen a regulator”.

Traditionally, the animus between a Tribe and the State and Counties causes a reluctance to seek each other out for assistance. In three separate instances I’ve seen a process that helps bridge this gap that may have applicability elsewhere. Since the State and Counties do not have jurisdiction on the Reservation and since most Tribes do not have procedures in place, many problems go unresolved. What does work is to have the Tribe “request” assistance from the County or State on a case by case basis. Once this happens, the latter feels comfortable helping and they have the necessary ordinances and expertise to get the job done. This is an especially powerful tool for fee land.

Another barrier to successful cooperation between Tribal communities and EPA is the penchant of the later to divide its operations into specialties and along program lines. Tribes think holistically. A piecemeal approach to environmental problems has less chance of success on Indian lands than a multimedia, inclusive one. That is not to say that Tribes do not have their priorities. Certain topics of traditional importance to the tribes, such as surface water, fish and wildlife and air pollution are a high priority to the Tribes due to their views of nature and of man’s place in it.

An essential incompatibility between the Tribes and EPA is two different models of the environment. In many ways they are in direct conflict with each other. A dominant factor in Tribal philosophy is Traditional Environmental Knowledge (TEK) that embodies thousands of years of tradition and oral history regarding the planet. On the other side is a reliance on what one tribal member referred to as, “Western Science”.

EPA’s reliance on chemical and biological analysis as a measure of acceptability and on emission and discharge limits and de minimus quantification is counter to a Tribal member’s experience. Emphasizing operational criteria such as Best Management Practices (BMP) has a more favorable response.

Perhaps, one way to illustrate the difference is how EPA deals with the dilution of pollutants. White man tradition is to allow pollutant concentrations up to a specified standard deemed safe or protective of the public health and welfare (to use the language in the Clean Air Act) with the normal caveat that there is a margin of safety built into the standard. If we can show that at this level, there is no adverse environmental impact then we allow it. TEK, in contrast, suggests that the pollutant should not be released to the environment in the first place. This is why some tribes suggest Water Quality Standards that are all zeros or are concerned with air pollution that is being emitted dozens of miles away and would have been diluted to safe levels during transport.

The millennia old Tribal practice of placing fish carcasses along river banks, to reinforce the fish’s ability to return, might be viewed as an unacceptable polluting source by non-Indians.

Since we are discussing cultural differences, I thought I would include a few notions that might be helpful to those working with the Tribes.

Agreements have always been a problem in communication. I’ve been told by Tribal members that there is a basic disjoint in interpreting “requirements” such as in Grant agreements. EPA grant rules are inclusive and authorize what is to be done and what will be reimbursed. Anything outside the scope of the agreement is not reimbursable. Tribal personnel view the language proscriptively and unless something is specifically prohibited, it is allowed.

Another rule of thumb that I use is, “Always bring a gift”. When I visit a Reservation and meet with someone, I always bring something to give. Usually, this is a notebook with color printouts of the maps I generate, or the latest list of facilities I have inventoried. Or it can be a guidance document or reference that is associated with the issue. Even something as mundane as a pamphlet would suffice. Anything that shows you made an effort on their behalf will do.

Pollution Prevention

Having had some training in Pollution Prevention at the Toxics Use Reduction Institute at the University of Massachusetts, in Lowell, Massachusetts, I have some ideas where and how pollution prevention can work and potential obstacles that will need to be overcome.

There is a dearth of large industries in Indian country so the opportunity for Environmental Management Systems to be useful is minimal. For example, in my inventory I found only three or four Large Quantity Generators (a phosphate plant that has been shut down and is now a superfund site, an agricultural chemical distributor who about once per year washes out a railroad car that generates enough rinsate to be a LQG, and a couple of one-time only Pesticide collection efforts that produced sufficient quintiles of waste to be classified LQGs). I found no Small Quantity Generators; however, there were many Conditionally Exempt Generators. (Typically, a drum per year or less.) A significant number of facilities generated used oil, antifreeze, batteries and tires as well as some auto body shops and paint shops, not previously identified that might generate paint solvents and still bottoms. I had a sense that many of the issues would be solved by a one-time only fix rather than managing a continuing waste stream. Most painting is water based, printing and sign painting is done by computer output devices. I only found three dry cleaners.

In order to successfully make a "business case" for pollution prevention one has to identify alternatives and their source and the transport options. Most Reservations are remote and/or very small in size in terms of the normal transportation routes so specific orders can be expensive. Economies of scale are not anticipated. In a large city, there may be ample outlets for such alternates as well as multiple customers of specific items. Not on reservations. In Alaska, most of the villages are land locked with the primary transportation of goods being by plane. Typically, all material travels one way with packaging, wastes and unused items remaining there.

One arena with high potential is waste antifreeze recycling. In these remote areas, having a place to take used antifreeze that could be reconstituted on site and resold would be a bonus. There seems to be sufficient market for used oil and batteries to attract the recycle market but not antifreeze.

Use tires are a large problem in Indian Country. I found numerous examples where someone had accepted used tires for a fee (as a means of making a living) only to pile them on trust land where they have been abandoned but still in place. Although not strictly a candidate for Pollution Prevention strategies (as there is no viable alternative for tires) some means of using the used products might have beneficial environmental results. Like tires, abandoned automobiles are blight in Indian lands.

Open dumps and covered over historic dumps sites are a significant issues on many Reservations and separation and burning of the combustible wastes is common. This is especially true in Alaskan Villages. One pollution prevention strategy might be to encourage the use of bulk food and supplies rather than individual packaging. This is especially critical now that the Federal Air Rule for Reservations (FARR) prohibit open burning and the use of burn barrels.

I've seen huge piles of computers and other electronic devices at dumps.

Many of the venues typically fertile for Pollution Prevention strategies, such as Health Clinics, Dental Clinics, Hospitals, and Pharmacies, are currently being addressed by the Indian Health Service with high success.

There are a few opportunities for Pollution Prevention on Indian lands that are outside the main stream of thought. There may be a real opportunity for making some significant changes in these areas. I've already mention the critical need for collecting and recycling used antifreeze (this would required some grant funding to acquire the still, however).

Another untapped arena is in the area of water discharges to surface water! Typically, any discharger to Waters of the United States is required to have a National Pollutant Discharge Elimination System (NPDES) permit. A large number of these in Indian Lands are agricultural related operations (canning, produce processing, packaging, etc.) that use the water for non-contact cooling. Rather than simply applying for and getting a permit, a business case can be made for not discharging. The alternative would be sending the water to the Municipal Wastewater Treatment Plant or surface impoundment with the aim of relying on evaporation or irrigation of crops as well as other uses of the nearly clean water.

In one case, I found that a facility was paying approximately \$60,000 per year to implement the NPDES permit (sampling, lab analysis, monitoring, staff, etc.) in order to save \$300 per month fee for piping it to the Publicly Owned Treatment Works (POTW). In other instances, there were regulatory barriers that need to be addressed such as those in State Land Application regulations. As can be seen in this example; there is a significant financial incentive to consider an alternative to discharging.