



The

# Broadcasters' Desktop Resource

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... edited by Barry Mishkind – the Eclectic Engineer

## Focus on the FCC

### On the Road with an ABIP Inspector Grading Stations and Locating Zombie Transmitters



**By Mike Langner**

*[June 2013] Once again, ABIP Inspector Mike Langner invites us to us ride along with him as he inspects stations around the state of New Mexico. Along the way, some curious situations present themselves. It is, after all, broadcasting.*

*So, saddle up! As usual the names and places have been changed to protect the innocent – and the guilty!*

The Alternate Broadcast Inspection Program (ABIP) is not exactly the same as an official FCC inspection. In some ways, it is better.

One of the more pleasant aspects of the ABIP is that, even if deficiencies are found, participating stations have the opportunity to correct them and still qualify for a Certificate of Compliance without any negative contact with the FCC. Better, stations passing the ABIP get a three-year exemption from pretty much all official FCC inspections.

While I do not make repairs nor adjustments myself during an inspection, occasionally I can offer suggestions from my experience that might help the station get things right.

Over the years, it has been good to see that most stations do try hard to make the most of the program. Some of the others? Well, just take a look over my shoulder.

#### **POSITIVE INSPECTION RESULTS**

Let us start with an inspection where I was able not only to help the station management become compliant and pass their ABIP inspection, but I was able to provide information to solve one of their biggest headaches.

This was an AM/FM combo which had endured annoying RF interference from the AM station in almost all their studio equipment. For several years they had operated the combo from a studio and office building located between 50 and 100 feet from their tower. The tower held the FM antenna - and was the AM antenna, via a shunt feedline.

During the inspection, I noticed that the FM feedline came down the tower was bonded at intervals to one of the tower legs – except right at the bottom. The coax had been replaced after a lightning hit.

## **NEW EYES IDENTIFIED THE PROBLEM**

Unfortunately, the new coax line turned out to have been a bit too short for the installation and, as a result, the FM feedline came off the tower about 15 feet above the base of the tower.

As you might expect, AM RF was everywhere, being brought into the studio/office/transmitter building on the outside of the FM coax. I suggested that the station buy some more coax to lengthen the line, run the FM coax all the way down the tower to the grounded base, and bond it well at that point.

Several weeks after my inspection visit, the station management called to say they had done so, and all the AM interference on their audio equipment, telephones, and computer speakers had magically gone away, just as I had said it would.

In the end, the station not only got their Certificate of Compliance – but relief from a major headache!

## **A UNIVERSITY STATION GETS SOME POOR GRADES**

About 150 miles away from my home base in Albuquerque, we visited a University FM station, licensed to the Board of Regents of the school.

The student run station originally started as one of those little Class D, 10 Watt operations, but now it has been upgraded to a few kilowatts.

The first sign of trouble came as we inspected the transmitter room. Although the room was pleasantly cool, the transmitter's front panel was noticeably hot!

I asked the fellow from the station if the transmitter was always this warm. "Yes," he said. "*The entire room used to get really warm until we started exhausting the hot air up into the dropped ceiling.*"

And there it was: An exhaust duct running from the transmitter into the plenum space between the hanging tile ceiling and the actual structural ceiling. But it was not really made of duct material – and it was not very big. Actually, it was four-inch white plastic, bendable tubing, the type used for a residential clothes dryer's hot air exhaust.

And the plastic was very, very warm, just like the transmitter.

## **MISSING THE POINT**

"*Do you really think this is a good idea,*" I asked the station representative. "*Yep, sure do,*" he replied. "*It's been really comfortable in here ever since.*"

"*And how's the tube life in this transmitter,*" I asked.

"*Well,*" he said, "*it used to be really good. The last few tubes haven't lasted as long as they used to, though.*"

I explained to him that he was "cooking" the final amplifier stage – its components and its tube – and suggested better exhaust and more air conditioning. He said he would think about removing the four-inch drier duct, but that the staff sure liked the room better now.

To this day, I have no idea what finally happened. Why? Because the inspection visit was about to get even more interesting.

## **LOOKING FOR THE PUBLIC FILE**

Back inside the studio, I moved on to inspect the Public Information File.

Actually, I normally start my inspection with the Public Information File. But when I first arrived nobody knew where to find it. Not a good sign.

It turns out there was a simple answer as to why it could not be located. They did not have one.

Because I had a little bit of time to spare that day, item by item, working with the station representative, we began to collect items for the Public Information File. That is, until we came to the Issues/Programs list.

### NOT THE RIGHT ANSWER

I explained the purpose of the Issues/Programs list, what to put on it, and how it had to be placed in the Public Information File on a quarterly basis.

The response was a just a bit slightly less than underwhelming.

*“Well, I don’t think anyone around here is going to want to go to all that trouble,”* said the station representative.

*“Would you mind checking with station management,”* I asked. *“Does the Board know for sure that it is responsible for this station? Do the regents know what this station does every day?”*

I was assured the Regents knew of the station. Then, after checking with a few students, I was told: *“It looks like nobody wants to take on the responsibility of the Public File, so I guess we’re just going to leave it as it is.”*

I thanked the station representative for his time and left at that point, never to hear again from the station – and never to return nor issue a Certificate of Compliance.

Oh yes, while parking where the station representative said I should park, I got a parking ticket. Fortunately, after an explanation, the school’s Police Department waived the ticket.

I can only say the school’s Police Department got a better grade for doing their job than did that university station!

### THE CASE OF THE ZOMBIE STATION

We will conclude this edition with a story about a station that did not exist – but it did.

One day, I got called in to help a small market station operator solve an interference problem. While getting ready to build a station, he was hearing another station on the FM frequency for which he had been granted a construction permit.

The station he was hearing was an FM station I had inspected, and passed. The signal not on the primary station’s frequency, but it sure was their audio.

How could this be happening?

After a little direction-finding, the small market operator and I drove up a nearby mountaintop. There we found the source of the signal – an FM translator.

I promptly called the primary station to tell them that the translator needed to be turned off, *and it needed to be turned off right now!*



In chatting with the primary station's engineer, a very capable and widely respected fellow, he explained that he had turned the translator off months ago, when he was notified the small market station had "displaced" his translator.

He was just as mystified as we were as to how it got back on the air.

It took a few calls to some of the two-way radio shops in the area, and before long the mystery was solved. A two-way radio technician had been in the translator building, found the translator unplugged, and plugged it back in, thinking he was doing a good deed.

But did he call anyone to check before putting the translator back on the air? Nope!

Needless to say, the next day the primary station physically removed the translator - which was never heard from again.

We are planning some more stories from the road, right here on the BDR, before too long. So, please stay tuned!

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*Do you have a question about inspections? Contact Mike at [mlangner@swcp.com](mailto:mlangner@swcp.com)*

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